

DOCUMENT RESUME

ED 173 719

CG 013 626

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TITLE Youth Development in the Youth Conservation Corps: An Exploratory Study of Personal and Social Development in Participants.
INSTITUTION Cornell Univ., Ithaca, N.Y. Dept of Human Development and Family Studies.
SPONS AGENCY Department of the Interior, Washington, D.C.; State Univ. of New York, Ithaca. Agricultural Experiment Station at Cornell Univ.
PUB DATE Sep 78
NOTE 159p.
EDRS PRICE MF01/PC07 Plus Postage.
DESCRIPTORS *Developmental Psychology; Family Influence; Fear of Success; Job Satisfaction; *Maturity Tests; *Organizational Effectiveness; Psychoeducational Processes; *Resident Camp Programs; School Attitudes; *Social Development; *Youth Programs
IDENTIFIERS *Youth Conservation Corps

ABSTRACT

The impact of participation in Youth Conservation Corps (YCC) on the personal and social development of youth is measured with the Psychosocial Maturity Inventory. In addition, informal observations are recorded by staff members and participants. Personal background information and pretest scores indicate that participants differ substantially. Three elements appear to be particularly important in determining the quality of YCC experience: the competence of staff; the nature of the work performed; and the organizational structure of the programs. Changes in PSM scores are limited to an increase in the Trust Subscale and a decrease in the Tolerance Subscale. (PJC)

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ED173719

YOUTH DEVELOPMENT IN THE YOUTH CONSERVATION
CORPS: AN EXPLORATORY STUDY OF PERSONAL AND
SOCIAL DEVELOPMENT IN PARTICIPANTS

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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Acknowledgements

The research reported herein was supported by two contracts with the U.S. Department of the Interior and by Hatch funds from the Cornell University Agricultural Experiment Station. Hamilton was principal investigator. Stewart performed the data analysis and coauthored the text. Walter Frankel and Judy Brophy assisted in data collection and in some of the design and analysis. Joy Hall and Marge Asbury provided competent secretarial help throughout the study. We wish to thank Peg Rosenberry for her consistent support and assistance. The program administrators who gave us their permission to conduct the study and consistently met our requests were Susan Cook, Tom Dumas, Greg Loan, Don MacVean, Bob Mynyk, Mark Weider, Al Widman, and Bill Winslow. We appreciate their dedication to learning more about YCC's impact on youth and their great openness to our investigation.

Abstract

An exploratory study was conducted to assess the impact of participation in Youth Conservation Corps (YCC) on the personal and social development of youth. Five program sites located in upstate New York were studied. Four of those were nonresidential. Two programs were studied intensively, including nonselected applicants in the study as control groups, a comparison group of nonYCC youth doing similar work, and more extensive data collection. More than 160 youth participated in the five programs, some for less than the full period. The sample, excluding those for whom complete data were unavailable, was 117 participants, 21 comparison group participants, and 42 control group members.

The major outcome measure was the Psychosocial Maturity (PSM) Inventory, which is made up of nine subscales. This instrument was administered at the beginning and at the end of the programs, along with a measure of attitudes toward school and one about family decisions and rules. Personal background information was obtained during the pretest and from documents. The posttest also included a questionnaire about satisfaction with the YCC experience, another about crew leaders, and a projective measure of "fear of success." In addition, observations were conducted informally, staff members were interviewed at the close of the programs and subsamples of participants in the two intensively studied programs were interviewed. A group of

problem-solving exercise was conducted with another subsample at the posttest.

Personal background information and pretest scores indicated that participants in the five programs differed substantially. Observations confirmed that the programs were also distinctive. Qualitative data collected through observations and interviews suggested to us that three elements were particularly important in determining the quality of the YCC experience: the competence of staff, the nature of the work performed, and the organizational structure of the programs. Participant attendance rates were correlated with our ratings of work and staff quality. Changes in PSM scores from the beginning to the end of the programs were limited to an increase in the Trust Subscale and a decrease in the Tolerance Subscale. Attitudes toward school became more negative. Comparisons of results among participants in the different programs did not reveal clear patterns except for a tendency for the participants in the one residential program to gain more than those in the nonresidential programs.

The major burden of interpretation, given these findings, is to explain why there were no more dramatic changes and differences, especially in view of two other studies showing increases in PSM scores among YCC participants. Limitations in the design, methods, and execution of the study are noted and recommendations made for future research, including more strenuous efforts to obtain true

control groups, standard testing conditions, and improved measures.

PART 1

Introduction

The study that is reported in the following pages has four purposes:

- (1) to assess the impact of the Youth Conservation Corps (YCC) on participants' personal and social development;
- (2) to compare the impact of different YCC projects on participants;
- (3) to describe the operations of different YCC projects sufficiently to suggest the sources of different impacts;
- (4) to develop strategies and instruments for evaluating future YCC projects.

These objectives are very ambitious, but the study is intended to be exploratory, not conclusive. Neither theory nor research methods have been developed sufficiently to allow conclusive research on educational programs like YCC. (See Hamilton, 1978.) We hope this report will contribute something to both theory and methods that can be used in

future studies of this kind.

YCC represents a kind of experience that is seen as highly desirable for young people by educators, social scientists, parents, and the general public. Recent recommendations regarding the reform of secondary education have been unanimous in their pleas for increasing the opportunities of young people to work, to focus their energies on important issues, to cooperate with each other and with adults, and to participate more fully in their communities (Bruce et al., 1976).

The objectives stated for YCC are:

- (1) Accomplish needed conservation work on public lands.
- (2) Provide gainful employment for 15 through 18 year-old males and females from all social, economic, ethnic, and racial backgrounds.
- (3) Develop an understanding and appreciation, in participating youths, of the Nation's natural environment and heritage.

These objectives will be accomplished in a manner that will provide the youth with an opportunity to acquire increased self-dignity and self-discipline, to work and relate with peers and supervisors, and build lasting cultural bridges between youth from various social, ethnic, racial, and economic backgrounds.

(Federal Register, Vol. 40, No. 100, Thursday, May 22, 1975)

Our study focused on the ideals expressed in the last paragraph, which we termed "noncognitive learning" or "personal and social development." All of these phrases, however, remain quite vague and require further specification. Such specification will be better understood in the context of the authors' broader concerns and beliefs.

First, we believe that the aim of education, including

educational programs like YCC, should be enhancing human development.

Human development is the process through which the growing person acquires a more extended, differentiated, and valid conception of the ecological environment, and becomes motivated and able to engage in activities that reveal the properties of, sustain, or restructure that environment at levels of similar or greater complexity in form and content.

(Bronfenbrenner, forthcoming. See also Kohlberg and Mayer, 1972.)

Two implications of this view deserve special notice here. The first is that specific knowledge, skills, and attitudes are means toward development rather than ends in themselves. The second is that development is a continuing process rather than a goal that is ever completely attained.

Accepting development as the aim of education, one must still answer the question of what educational programs like the YCC can contribute to development. Drawing on Coleman (1972, 1974) and other sources, we developed a set of objectives and a list of opportunities that out-of-school educational programs can provide that are assumed to contribute to progress toward those objectives. This is the theoretical basis that guided our selection of methods and instruments for the study of YCC programs, though some of our questions had other sources.

Desired outcomes include both greater skill and greater motivation to use that skill in two areas: (A) work; and (B) social interaction. (A) Work or task has three elements: 1. planning what is to be done; 2. locating

and applying human and material resources (advice, tools, energy, money) to the task; and 3. persisting at the task.

(B) Social interaction includes: 1. dealing with people who are different (especially in age, sex, race, and class); 2. dealing with new or opposing ideas; 3. taking responsibility for the welfare of others; and 4. carrying out commitments.

The processes or opportunities that are assumed to have the strongest influence on these outcomes are: 1. making important decisions, both alone and as a part of a group; 2. participating in activities that are valued by the participant and by others; 3. coming into contact with people who are different under favorable conditions; 4. being responsible to and taking responsibility for others; 5. reflecting on the experience and trying to integrate it with past experiences and future plans; and 6. interacting with one or more authoritative adults.

Since the purpose of presenting this framework is to reveal the basis for making a number of choices in designing the study rather than to argue for its validity or usefulness, we shall not explain it in detail. But a few comments are in order. First, both the outcomes and opportunities as stated are too vague to allow measurement. Operational definitions and standards of accomplishments are required before these general ideas can be used for research purposes. Second, numerous qualifications should be made about, for example, the conditions under which it

is appropriate to take responsibility for another's welfare and when it may be better to stop than to persist at a task.

PART 2

Design and Methods

2.1 -- Design

The multiple purposes of the study led to a design incorporating comparisons across five different YCC projects and between two YCC projects and two control groups consisting of YCC applicants who were not chosen by the random selection procedure. Another comparison was provided by the inclusion of a group of low-income youth paid by Comprehensive Employment and Training Act (CETA) funds. They worked in a project run in conjunction with a local YCC project, which duplicated that project in all respects but the official YCC designation and the participant selection process. Pre- and posttesting were done with the YCC programs (treatment groups), and the CETA program and the two groups of nonselected applicants (comparison groups). At the end of the projects, questions were also asked of participants in the YCC groups and the CETA comparison group regarding their satisfaction with the project and their rating of their supervisors. In addition, observa-

tions were conducted in each of the sites during the programs, staff members were interviewed during the posttest phase, and selected participants were interviewed at two of the sites.

The YCC and CETA projects were tested in groups ranging in number from 17 to 36. The investigators administered the tests in person. In most groups the questionnaire instructions and items were read aloud by the investigators to aid participants with reading difficulties.

The control groups were mailed questionnaires similar to those used with the YCC and CETA groups. There were two mailings, one for pretest and one for posttest, at times immediately following the testing of the YCC and CETA groups. Cover letters accompanying the questionnaires briefly explained the study and offered \$3.00 for return of the pretest and \$5.00 for return of the posttest. Self-addressed stamped envelopes were provided for return of the tests.

Our original intention was to focus on two projects as primary research sites and to use randomly selected control groups drawn from nonselected applicants to those two projects. Four more projects would be studied for comparative purposes, without the use of control groups and without extensive interviewing or observation. Two problems arose with this plan. One project (Bronx River Restoration) experienced financial difficulties and terminated in July so that no posttesting was possible. It was dropped from

the study. The second problem was that our groups of nonselected applicants did not prove to be sufficiently random to treat them as actual control groups. Our hope that names of control group members would be generated by the same computer run that selected participants was not fulfilled, leaving the selection process biased in unknown ways. Furthermore, of the nonselected applicants we invited to participate in the study, only 42% chose to return both the pretest and posttest. Therefore, nonresponse bias afflicts the sample we obtained. To complicate the situation further, one project had a high rate of nonparticipation among randomly selected applicants because of the requirement that participants provide their own transportation. This meant that neither the actual participants nor the intended control group could be considered representative of the total applicant pool. What we obtained must be regarded as treatment and nontreatment groups drawn from the same pool of applicants by a combination of random assignment and self-selection.

2.2 -- Description of Projects

The two primary sites were located in Oswego County and the City of Syracuse. Syracuse is a city of nearly 200,000 people located near the center of New York State. It is the major metropolitan area in the region, drawing commuters and shoppers from surrounding communities. It remains linked by the New York State Thruway to the chain

of industrial cities that grew up along the Erie Canal between Albany and Buffalo. It contains a major university and functions as a cultural and commercial center for the region. Its population is diverse ethnically and neighborhoods are strong. It combines some of the flavor of an urban center with resonances of small town America.

The YCC program in Syracuse was initiated by the Mayor's office of Federal and State Aid Coordination. Al Widman, in that office, wrote the proposal and took responsibility for coordinating the project. He enlisted the support of two other city agencies, the Parks Department and Syracuse Youth Referrals (SYR), a counseling and job placement agency that is involved with CETA and other employment programs. The Parks Department agreed to supply jobs, equipment, hiring and supervision of staff. SYR was to recruit and hire participants. The majority of the 60 participants were black.

Oswego County is directly north of Syracuse. Its northwestern border is the shore of Lake Ontario. Its northeastern border is in the rugged and sparsely populated Tug Hill Plateau. Oswego, the largest city, with a fourth of the county's 100,000 people, is the location of a sizable unit of the State University of New York, of several power plants, and of a number of businesses and industries. The southern part of the county contains a small industrial city and some bedroom communities for Syracuse. Agriculture, especially vegetable crops and dairying, are major

industries.

Oswego County's YCC project is administered by Cooperative Extension in cooperation with the county government and manpower office. It is unusual in that it has a companion program called Oswego County Conservation Corps (OC3) that is funded by CETA. Both are administered by the same director, Greg Loan, follow the same principles, and do the same kind of work. YCC was used as a model to create a work-learning experience for youth who are paid from CETA funds. Forty YCC positions were made available in Oswego County. Another 80 young people were paid by CETA. They worked in crews of about eight with YCC participants and staff in separate crews from OC3 participants and staff. We included 33 OC3 participants in the study in order to compare the experiences of young people doing similar kinds of work to YCC participants but the OC3 group did not have the YCC label and they were selected because of low family income rather than randomly.

Monroe County was one of the three secondary sites. Rochester is the dominant municipality in Monroe County. Most of the area around the city is suburban. The Monroe County Parks Department sponsored its YCC project, hiring 40 young people to work in county parks. We hoped originally that Monroe County would provide a comparison with Syracuse as another project drawing on an urban population but in fact almost all participants came from outside of Rochester and represented the middle to upper-middle class

population of the county.

Cortland County is somewhat like Oswego County in having a mixture of agriculture and industry and a small city. Its YCC project was also sponsored by Cooperative Extension. It was chosen to represent small nonresidential projects with its 20 participants. Most of the work was done at the county 4-H camp, which has been developed as an outdoor education center by three successive YCC projects. Some work was also done to provide nature trails on the grounds of a school.

The Cayuga Center in Tompkins County housed the only state grant residential project in central New York State. Twenty-four participants were authorized, but 20 actually participated in work based at a facility formerly called the Cayuga Preventorium because it was built as a fresh-air camp to prevent tuberculosis in children. Now it is operated as an outdoor education center by Onondaga Nature Centers, Inc. The work was done in nearby Taughannock Falls State Park. Participants were recruited from all over the state and lived at the center seven days a week.

2.3 -- Instruments

Personal Background Questionnaire. The Personal Background Questionnaire (see Appendix B) was designed to provide some means of comparing the members of different programs and control groups. In this way we were able to know what kinds of youth participate in the YCC and how they

vary from camp to camp. The information provided was also useful for the purpose of classifying participants (e.g., by age or sex) in later analyses. The Personal Background Questionnaire was given to all groups as part of the pre-test.

Transactional Evaluation. Transactional Evaluation is a term and a method taken from Rippey (1973). A member of the research team asked participants to write statements about the YCC program on cards, then read a selection of those statements to the group and asked them to indicate the extent of their agreement or disagreement with the statements on a seven-point scale. Results were reported quickly to allow for discussion of their meanings and implications. The intention was that this process would be employed at three times during the programs, in the beginning, the middle, and the end, and that the results would assist staff in planning and altering the program. It did not prove as useful as hoped, perhaps because staff members were in close touch with participants and knew most of what participants expressed through their statements, but also because many of the complaints voiced in this way were beyond the control of staff. The result was that it was not used as much as planned.

Decisions and Rules Questionnaire. It was thought that a youth's participation in the YCC might stimulate a more active role by the youth in decision making at home. This might be especially true if YCC is his or her first

paying job. The youth might then be perceived by himself or herself as well as by parents as taking a step towards greater maturity and responsibility, which might also be reflected in a greater responsibility for decision making at home. The Decisions and Rules Questionnaire (see Appendix C) provides information about the home decision-making process as perceived by the youth. It was administered to all groups at both the pretest and the posttest.

Psychosocial Maturity Inventory. Our main dependent measure was the Psychosocial Maturity (PSM) Inventory, developed by Ellen Greenberger and her associates (Greenberger, Josselson, Knerr and Knerr, 1975). Form D, grade 11, was used. (See Appendix D) The Inventory consists of 93 statements, to each of which the subject responds with either "agree strongly," "agree," "disagree," or "disagree strongly." The Inventory measures three aspects of psychosocial maturity which correspond to three general demands made by society on all of its members:

- (1) Individual adequacy -- one's ability to function on one's own. This is measured by the Self-Reliance, Identity, and Work Orientation Subscales.
- (2) Interpersonal adequacy -- one's ability to interact adequately with others. The Communication, Trust, and Roles Subscales all reflect aspects of interpersonal adequacy.
- (3) Social adequacy -- one's ability to contribute to social cohesion. The Social Commitment, Change,

and Tolerance Subscales are measures pertaining to social adequacy.

Table 2.1 (taken from Greenberger et al., 1975) summarizes the main dimensions measured by the nine subscales. The PSM Inventory was given to all groups at both the pretest and posttest.

School Attitude Questionnaire. The School Attitude Questionnaire was designed to measure changes in attitudes towards the value of school. The six items constituting this scale (see Appendix E) are similar in format to those of the PSM Inventory, and so they were inserted into the Inventory as item numbers 20, 42, 63, 83, 84, and 99. The School Attitude Questionnaire was included in both pretest and posttest for all groups.

Fear of Success Measure. The Fear of Success projective test (Horner, 1968) was used to tap participants' attitudes toward achievement in sex-inappropriate behaviors. It was expected that female participants in the YCC, who daily experienced women leaders and female coworkers engaging in male sex-appropriate activities, would exhibit less fear of success imagery in their stories in the posttest than in the pretest. The test consisted of three written statements, each followed by four standard questions. Each statement was designed to elicit a story based on the situation described. The second statement presented a woman performing a sex-inappropriate activity and the third presented a man performing a sex-inappropriate activ-

TABLE 2.1A Model of Psychosocial Maturity ^a

Individual adequacy

Self-reliance

- Absence of excessive need for social validation
- Sense of control
- Initiative

Identity

- Clarity of self-concept
- Consideration of life goals
- Self-esteem
- Internalized values

Work orientation

- Standards of competence
- Pleasure in work
- General work skills

Interpersonal adequacy

Communication skills

- Ability to encode messages
- Ability to decode messages
- Empathy

Enlightened trust

- Rational dependence
- Rejection of simplistic views of human nature
- Awareness of constraints on trustworthiness

Knowledge of major roles

- Role-appropriate behavior
- Management of role conflict

Social adequacy

Social commitment

- Feelings of community
- Willingness to work for social goals
- Readiness to form alliances
- Interest in long-term social goals

Openness to sociopolitical change

- General openness to change
- Recognition of costs of status quo
- Recognition of costs of change

Tolerance of individual and cultural differences

- Willingness to interact with people who differ from the norm
- Sensitivity to rights of people who differ from the norm
- Awareness of costs and benefits of tolerance

^a Reprinted from Greenberger and Sorensen (1974).

ity. These data have been analyzed separately and will not be discussed in this report.

Camp Satisfaction Questionnaire. The Camp Satisfaction Questionnaire (see Appendix F) is a set of 21 items similar in format to those of the PSM Inventory. It was designed to assess participants' attitudes about their summer work experience and to identify sources of content and discontent. It also contains several items designed to discover what types of learning the participants thought they experienced. Many of the items in this questionnaire also appear in the Youth Conservation Corps End-of-Camp Questionnaire which is given by the Department of the Interior to federally administered camps. The Camp Satisfaction Questionnaire was given to the YCC and CETA groups at the posttest.

Leader Questionnaire. The Leader Questionnaire (see Appendix G) consists of 20 statements about crew supervisor behaviors. The participant responds to each statement on a five-point scale ranging from "never" to "always." The instrument was designed to determine participants' perceptions of leadership quality and style. The Leader Questionnaire was given to YCC and CETA group members at the posttest. Participants who had two immediate supervisors filled out two questionnaires.

Wilderness Survival Exercise. Selected participants in Oswego and Syracuse were given the Wilderness Survival Exercise. (See Appendix H) This problem-solving exercise

was intended to assess the degree to which participants were able to pool their knowledge to come up with more accurate solutions to a problem. The exercise was taken from a collection of activities for human relations training groups (Pfeiffer and Jones, 1976). It presented the situation of a person lost in the wilderness and then posed a series of questions about what the person should do, providing four response choices for each. Each person in the testing group was first asked to respond to the questions alone, and then the group was asked to come to a consensus on each. Effectiveness in group problem-solving could then be expressed in terms of the difference between the highest number of correct responses given by an individual and the number of correct responses given by the group as a whole. This test was administered during the posttest phase of the study. Unfortunately it relied heavily on verbal ability in group discussion situations and was judged to be inappropriate for its intended purpose. Results are, therefore, not reported.

Participant Interviews. A total of 45 participants in Syracuse and in Oswego County were interviewed. (See the interview schedule in Appendix I) The interview consisted of open-ended questions about the participant's YCC experience. The participants were encouraged to express their opinions about what would have made their own experience a better one, and more generally, what an ideal YCC camp would be like. (E.g., What makes a good crew leader? What

is the best number of workers in a work crew?) The participants were interviewed individually by members of the research staff during the posttest phase of the study.

Job Preference Ratings. Participants who were interviewed were also asked to fill out two job preference rating sheets. (See Appendix J) The Actual Job Preference Rating listed five categories of jobs. The participants were first asked to check off those jobs which they had actually done, and then to number the jobs they had done in the order of their preference. The Possible Job Preference Rating listed 20 possible types of jobs. The participants were asked to choose five jobs they would most like to be able to do and to rank them in order of their preference. They were also asked to check off those jobs they had actually done in the YCC or elsewhere.

Staff Interviews. Most YCC staff members were interviewed. (See Appendix K for the interview schedule.) This interview concerned possible personal problems and satisfactions the YCC may have created for the interviewee, impressions about effects of the YCC on participants, opinions about the organization and administration of the YCC project, and suggestions they might have had concerning our evaluation. The YCC staff members were interviewed individually by members of the research staff during the posttest phase of the study.

Observations. Between the pretest and posttest the research staff visited and observed all of the YCC work

8 sites at least once. More extensive observations were done at Syracuse and at Oswego County than at the other projects. Observers took notes either while observing or immediately afterwards. The notes included a chronological description of behavior, noting especially incidents of decision making, cooperation, persistence or dependability, and reflection or integration with respect to the personal impact or social implications of the YCC. The observer's speculations and inferences were recorded in a separate section at the end of the field notes. Purposes for these observations included documenting what happened in the YCC programs, noting differences among programs, and suggesting issues or hypotheses for analysis. The field notes were categorized for analysis using the method described by Glaser and Strauss (1967).

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PART 3

Results

3.1 -- Introduction

Part 3 of this report will present the data. The amount of data is voluminous, and the number of possible analyses that can be performed is endless. The analyses reported are only some of those that have been performed, but they will best serve to throw light on the questions raised from our theoretical orientation presented in Part 1.

We will begin with a description of the participants in our study, the YCC enrollees in each of the five programs, the CETA workers in Oswego, and the members of the control groups in Oswego and Syracuse. Data regarding participant characteristics of interest come partly from the Personal Background Questionnaire and partly from demographic information on the participants provided to us by the Department of the Interior. We will also look briefly at pretest scores on the PSM Inventory, the School Attitude Questionnaire, and the Decisions and Rules Questionnaire.

This will give us some idea of the types of youth that are attracted to the YCC and how they differ from one location to another. In addition, knowing something about the characteristics of participants aids in the interpretation of the analyses that follow.

Following the description of participants, we will describe the YCC projects. In doing this we will present some of the results of participant and staff interviews which were given at the end of the summer. We will also make use of the observation data gathered throughout the summer, especially in Oswego County and Syracuse. We will also present findings from the Leader Questionnaire and selected items from the Camp Satisfaction Questionnaire. These questionnaires give us an indication of participant perceptions of their camp experience and of their crew supervisors.

The next section will address a question of primary interest to those concerned with the YCC: Does the YCC have a measurable impact on its participants? We will make use of our comparison groups to help answer this question. As will be seen, it cannot be answered by a simple yes or no. There are many ways for the YCC to have an impact and many ways to try to measure it. Our principal measures of impact will be the PSM Inventory, the School Attitude Questionnaire, the Decisions and Rules Questionnaire, and the Camp Satisfaction Questionnaire.

Clearly, not all YCC programs are the same. They can

vary on many dimensions. Thus, the next question discussed will be: Do some YCC programs have a different impact than others? This question will be addressed on two levels. First, we will look at differences in effects among the five YCC programs studied. Second, we will look at differences within programs by work crew. Since all the work crews within a program share the same administration and, at least to some degree, share information among themselves and influence each other, there is reason to examine overall program effects. However, observation data indicated that in some programs there were great differences among work crews because of differences in the type of work performed and differences in the behavior of work crew supervisors. Although not enough programs or work crews were studied to enable us to accurately identify specific program or crew characteristics associated with the largest effects on participants, our data will enable us to make speculative inferences about such effects.

In the final section of Part 3 we will briefly review a number of other analyses of interest. In this section we will move from the examination of program and crew characteristics and focus on the characteristics of the participants. The question then becomes: Does the YCC have a different impact on different kinds of youth? In answering this we will use the participant characteristics presented in section 3.2, Description of Participants. In this section we will also consider the association between the par-

ticipants' perceptions of their leaders and camps and their gain in psychosocial maturity. Finally, we will consider the data from the comparison group, the CETA participants in Oswego County.

3.2 -- Description of Participants

Table 3.1 contains information about the characteristics of participants in each of the YCC projects and comparison groups. The number of participants in the first row differs from the number of enrollees in the project because some enrollees were not yet on the site when the pretesting was done. The second row, number of participants in both pre- and posttests, is our sample for most purposes, including the percentages listed in the remainder of the table.¹ The third row, percentage of dropouts, refers not to dropouts from the projects necessarily, but to dropouts from pretest to posttest. For example, the Monroe project had a few enrollees who had to leave for college before the posttest was administered. The high percentage of dropouts in the Syracuse control group, 37%, is one of the reasons already cited for questioning the utility of this group as a true control. We simply have no

¹Statistics presented in Table 3.1 and elsewhere may be slightly different from those presented in the Preliminary Report (Hamilton and Stewart, 1977). Recently received information has caused us to modify our data slightly. Also, in order to standardize as much as possible the sample of participants used from one analysis to the next we have chosen to omit a few participants who provided only partial data.

TABLE 3.1

Personal Background of Participants
in YCC Programs and Comparison Groups

	YCC Programs						Comparison Groups		
	Syracuse	Oswego	Cortland	Monroe	Cayuga	Combined YCC	Syracuse Control	Oswego Control	Oswego CETA
# of participants at pretest	50	34	20	35	13	152	27	28	33
# of participants at both pre- and posttest ^a	32	28	20	26	11	117	17	25	21
% of dropouts ^b	36%	18%	0%	26%	15%	23%	37%	11%	36%
Age (average in years)	16.0	15.8	16.4	15.9	16.2	16.0	16.1	16.3	16.5
Grade in school (average)	10.2	9.9	10.5	10.4	10.4	10.2	9.6	10.4	10.0
H.S. dropouts (% of total)	3%	0%	0%	0%	0%	1%	18%	4%	0%
Sex (% of males)	84%	75%	65%	73%	54%	73%	71%	76%	52%
% living with both parents	41%	89%	75%	85%	55%	69%	63%	68%	80%
% with previous regular paying job	44%	54%	35%	46%	27%	44%	53%	48%	48%
% with one or more school activities	56%	64%	80%	77%	55%	67%	44%	20%	64%
% with one or more community activities	24%	41%	63%	61%	46%	44%	18%	33%	32%
Educational Aspirations: ^c									
Graduate from H.S. or less	38%	39%	6%	7%	0%	23%	31%	40%	56%
Technical or business training	10%	19%	17%	13%	36%	17%	12%	8%	17%
Four year college or more	38%	42%	61%	60%	64%	50%	50%	32%	22%
Don't know	14%	0%	17%	20%	0%	10%	6%	20%	6%

^aStatistics in this and later tables are based on this sample.

^bRefers to participants taking the pretest but not the posttest.

^cColumns may not total to 100% due to rounding.

way of knowing all the ways in which the dropouts might be different from those who responded to both pre- and post-tests. The high dropout rate of 36% for both the Syracuse YCC and Oswego CETA programs reflects partly the relatively high attrition rates from those programs and partly the fact that a few participants were present at the posttest but did not complete the most important questionnaires, and were therefore not included in most analyses.

Age and grade did not vary widely among the various projects and control groups. The means were a little over 16 years and 10th grade. The percentage of high school dropouts was essentially zero for all treatment groups. The Syracuse control group is deviant in this respect from the Syracuse YCC, though this is partly a result of the fact that high school dropouts also tended to drop out of the Syracuse YCC sample -- more took the pretest than took both pretest and posttest. The same was true for the Oswego CETA sample. Thus, for both the Syracuse YCC and Oswego CETA programs, our sample does not reflect the true proportion of high school dropouts enrolled in the programs.

Generally, the YCC programs studied were more successful at drawing male participants than females. The Syracuse YCC had the most difficulty attracting females while the Cayuga YCC and Oswego CETA program had the best male-female balance. Cayuga could control the sex balance, unlike the nonresidential programs, because they were

allowed to stratify their selection process by sex. The Oswego CETA balance may result from different recruiting and selection procedures than are used by YCC programs.

Syracuse had the smallest percentage of participants who were living with both parents, 41%, as compared to the highest percentage in Oswego with 89%. The Oswego figure seems quite high in comparison to the Oswego control percentage of 68%. One factor is that people not living with both parents dropped out of the Oswego project at a somewhat higher rate. The Syracuse figure is understandable given the low-income participant group. It is harder to explain why the Cayuga participants included so many from other than intact families.

About half of the participants had previously held a regular paying job, except in Cortland and Cayuga where percentages were considerably lower. In those two projects, though, 60% or more had held occasional paying jobs. Such occasional paying jobs might include mowing lawns or babysitting. When jobs of this sort are considered, YCC was the first paying job for at the most 40% of the Syracuse participants and at the least 12% of Oswego participants. (These figures are not included in Table 3.1.)

The questions about school and community activities were asked to find whether those attracted to YCC were also active in other programs. Interpretation is complicated by the possibility that the questions did not mean the same thing to all respondents. There is a striking difference

between Oswego YCC and control groups, the YCC participants being involved in school activities considerably more often, and there is an association between participation in school and community activities and other indicators of middle class status such as intact families and family income (see Table 3.2). Educational aspirations also reflect this pattern of association with social class except for the rather high percentage, 50%, of the Syracuse control group who hope to go to college.

The demographic information in Table 3.2 was not obtained from questions given to the participants during our testing sessions, but rather from questions they answered on the YCC application forms. Since control group members were also YCC applicants, the same data were available for them. Similar data were not available for the Oswego CETA members. Since data were not available for every applicant, the percentages may be biased in unknown ways, although we have no reason to believe this to be the case. In addition, we were able to supply from personal knowledge information about the population of the community from which the participants were recruited (labeled "Town Size" in Table 3.2) for all Cortland YCC and all Syracuse YCC and control group participants, and race information for all Cortland YCC participants.

Of the four nonresidential YCC projects, Syracuse clearly had the most disadvantaged participants according to the socio-economic indicators in Tables 3.1 and 3.2,

TABLE 3.2

Demographic Information for Participants
in YCC Programs and Control Groups

		YCC Programs						Control Groups	
		Syracuse	Oswego	Cortland	Monroe	Cayuga	Combined YCC	Syracuse Control	Oswego Control
Family Income	Below \$5,000	7 28%	2 9%	1 8%	0 0%	0 0%	10 11%	1 11%	3 16%
	\$5,000-\$10,000	14 56%	5 22%	2 15%	3 14%	2 25%	26 29%	6 67%	7 37%
	\$10,000-\$15,000	2 8%	9 39%	3 23%	8 38%	2 25%	24 27%	0 0%	8 42%
	Over \$15,000	2 8%	7 30%	7 54%	10 48%	4 50%	30 33%	2 22%	1 5%
	Information not available	7 -	5 -	7 -	5 -	3 -	27 -	8 -	6 -
Race	White	9 36%	24 100%	20 100%	20 95%	6 75%	79 91%	7 70%	20 100%
	Black	15 60%	0 0%	0 0%	0 0%	1 12%	16 16%	2 20%	0 0%
	Other	1 4%	0 0%	0 0%	1 5%	1 12%	3 3%	1 10%	0 0%
	Information not available	7 -	4 -	0 -	5 -	3 -	19 -	7 -	5 -
Town Size ^a	Under 2,500	0 0%	10 42%	11 55%	1 5%	2 25%	24 23%	0 0%	12 63%
	2,500-50,000	0 0%	14 58%	9 45%	13 62%	3 37%	39 37%	0 0%	7 37%
	Over 50,000	32 100%	0 0%	0 0%	7 33%	3 37%	42 40%	17 100%	0 0%
	Information not available	0 -	4 -	0 -	5 -	3 -	12 -	0 -	6 -

Note: The upper number in each cell is the number of participants in that cell. The lower number is the percentage of subjects for which information is available. Columns may not total to 100% due to rounding.

^aRefers to the population of the participant's home community.

followed in order of increasing advantages by Oswego, Cortland, and Monroe. Cayuga's indicators were somewhat mixed, partly because the participants were diverse, but perhaps also because residential projects attract somewhat different participants. Potential applicants to Cayuga from low-income families may have been deterred by the stipulation that participants provide their own transportation to camp and buy certain special equipment such as steel-toed shoes. Also, fees for room and board were subtracted from their pay. Although family income information is not reported in Table 3.2 for the Oswego CETA participants, qualification for participation in CETA requires that family incomes be below the official poverty level for a particular family size.

The majority of participants in the Syracuse YCC were black. However, The Syracuse control group did not reflect the same racial proportions, the majority there being white. In programs other than Syracuse, almost all participants were white. Oswego CETA participants were also all white.

In reviewing the information we received about the population of the community from which participants were recruited, we found that participants must have had varying ideas about what constituted the boundaries of their community. Some participants in Syracuse had not placed themselves in the "Over 50,000" category, although only applicants from within the city limits were considered. For our

purposes we decided to classify all Syracuse YCC and control group members in the "Over 50,000" category. Because of our familiarity with the Cortland area, we also classified or reclassified all YCC participants there into what we deemed to be the proper town size. Classifications for the other groups were not altered because we had no basis for changing them, but some error is surely present. Syracuse can be considered an urban population, the Monroe participants were primarily suburban, and Cortland and Oswego participants came from small cities or towns or rural areas. Since the Oswego CETA participants were drawn from the same area as YCC participants, the distribution of their places of residence is likely to be similar to those for the Oswego YCC.

Now we will turn our attention briefly to our participants' pretest scores on some of the instruments by which we measured program impact. Our principal interest here is to see if the various YCC and comparison groups of our study scored substantially differently from one another. Such differences in pretest level might contribute to differences in groups' success at producing positive changes by, for example, affecting the way participants behave towards each other, their work, or their supervisors. While this would lead to a group effect, differences in pretest level might also lead to differences of program impact for specific individuals. For example, there might be a "ceiling effect" in which a program only has a posi-

tive impact on those with low or average pretest scores, but those with relatively high pretest scores are not affected, either because they have "no place to go" with respect to the measures we used or else the program has an effect only for those of a low initial level. On the other hand, it is also possible for a "threshold effect" to occur, where only participants who have already reached some minimum pretest level are advanced enough for the program to have an effect.

Table 3.3 shows average pretest scores for each treatment and comparison group for some of our primary measures of program impact. In order to test whether there were significant differences among groups on these measures, a one-way analysis of variance was performed on each pretest measure (i.e., each row of Table 3.3) with the eight treatment and comparison groups as the independent variable.

The nine PSM subscales are scored so that a score of 1.00 is the lowest, or "poorest," possible score, and a score of 4.00 is the highest, or "best," possible score. Of these nine subscales, significant F's were obtained on two, the Work Orientation Subscale [$F(7,172)=3.585$, $p=.001$] and the Roles Subscale [$F(7,172)=3.332$, $p=.002$]. Interestingly, the two control groups averaged higher than any of the other groups on Work Orientation. This might be expected because, of the nonselected applicants invited to be in our control groups, only the 42% who took the time and effort to complete both the pretest and the posttest

TABLE 3.3

Average Pretest Scores on the PSM Inventory, School Attitude Questionnaire, and Decisions and Rules Questionnaire for Participants of YCC Programs and Comparison Groups

	YCC Programs						Comparison Groups		
	Syracuse	Oswego	Cortland	Monroe	Cayuga	Combined YCC	Syracuse Control	Oswego Control	Oswego CETA
Psychosocial Maturity: ^a									
Self Reliance	3.02	3.97	3.03	3.34	3.22	3.10	3.26	3.07	3.05
Identity	3.02	3.11	2.94	3.26	3.12	3.09	3.07	3.02	2.88
Work Orientation	2.75	2.80	2.40	2.89	2.94	2.75	3.14	3.06	2.73
Communication	2.82	2.58	2.66	2.83	2.58	2.71	2.86	2.82	2.67
Trust	2.55	2.74	2.74	2.84	2.62	2.70	2.64	2.63	2.64
Roles	2.81	3.07	3.06	3.25	3.22	3.05	3.25	3.28	3.17
Social Commitment	2.75	2.91	2.95	2.99	3.17	2.92	2.97	2.96	3.08
Change	2.81	3.01	2.92	3.05	3.33	2.98	2.97	2.99	3.05
Tolerance	3.08	3.12	3.18	3.29	3.31	3.17	3.03	2.29	3.30
School Attitude ^a	2.91	2.42	2.36	2.64	2.82	2.63	2.72	2.53	2.58
Decisions and Rules: ^b									
Question #1	2.90	2.54	3.11	2.88	2.73	2.83	2.50	3.17	2.47
Question #2	3.67	3.46	3.40	3.62	3.73	3.57	3.56	3.40	3.47
Question #3	2.81	2.67	2.56	2.54	2.25	2.61	2.69	2.55	2.46
Question #4	2.90	3.00	3.44	3.75	3.38	3.28	3.08	3.27	2.92
Question #5: ^c total number of rules	1.29	2.37	2.10	1.85	1.82	1.86	1.88	2.52	1.73

^aScores may range from a minimum of 1.00 to a maximum of 4.00.

^bScores may range from a minimum of 1.00 to a maximum of 5.00.

^cThe total possible number of rules is 8.

have been included in the analysis. Cortland scored the lowest in Work Orientation. Again, for the Roles Subscale, the two control groups scored among the highest of all groups. Here, however, the Syracuse YCC scored lower by far than any of the other groups. This may be partly because of some joking among the participants during the pretest sessions of the Syracuse YCC. Such behavior was especially prominent when items of the Roles Subscale were read. (All items in the PSM Inventory were read aloud to the participants by the investigators.)

The School Attitude Questionnaire is scored the same way as the PSM subscales. Possible scores range from 1.00 to 4.00 with a higher score indicating a more positive attitude toward school. The F for the School Attitude Questionnaire approached but did not reach significance [$F(7,171)=2.022$, $p=.055$]. Scores generally indicated neither highly positive nor highly negative attitudes toward school, ranging from a high of 2.91 at the Syracuse YCC to a low of 2.36 at Cortland.

Questions #1 and #2 of the Decisions and Rules Questionnaire referred to decisions made between the respondent and his/her mother. Scores range 1.00 to 5.00. On question #1 a low score indicates the respondent perceives his/her mother as being authoritarian in her decisions regarding the respondent, a high score indicates that the respondent makes decisions completely on his/her own, and a medium score indicates that decisions are made jointly

between the mother and respondent. Question #2 indicates the respondent's perception of the frequency with which his/her mother explains the reasons for her decisions and rules, ranging from the lowest score of "never" to the highest of "always." Questions #3 and #4 are the same as #1 and #2 respectively, except they are about decisions made between the respondent and his/her father. There were no significant differences among groups on any of these questions. There were general tendencies for respondents to report that fathers were more authoritarian than mothers and that they explained the reasons for their rules less often than mothers. However, interpretation is complicated by the high proportion of nonintact families in some groups.

Of the eight rules listed in question #5 of the Decisions and Rules Questionnaire, there were significant differences among groups in the proportion of respondents reporting a rule in their home only for one of the rules, "Time spent on homework" [$F(7,163)=3.352, p=.002$]. The Oswego YCC and control group reported this rule least often while the Syracuse YCC and control group reported it most often. (These figures are not shown in Table 3.2.) There were no overall significant differences among groups in the total number of rules checked off. Averages ranged from a low of 1.29 in the Syracuse YCC to a high of 2.52 in the Oswego control group.

3.3 Description of Projects

In order to put into the proper perspective the differences among camps in YCC impact on participants we first need to provide more information about the types of work projects in which the workers participated and characteristics of the supervisors that were present. Observations, supervisor and participant interviews, the Leader Questionnaire, and selected items from the Camp Satisfaction Questionnaire provide some of this information.

Observations and Interviews

Observations and interviews were conducted in order to obtain both from outsiders and from insiders some information about what happened during the YCC programs and how participants felt about what they were doing.

In Oswego, 25 participants were interviewed at the end of the program. In Syracuse, 20 were interviewed. We asked the crew leaders to give us names of participants they thought had gained a great deal from YCC and those of participants who had gained the least. Thus our respondents should have represented both the "good" and the "bad" participants as defined by crew leaders. Since the interviews were conducted at the end of the programs, they excluded participants who left earlier.

One of the most striking findings from the interviews was the response to the first question, "Why did you want to join YCC?" The answer was overwhelmingly given in terms

of having a job or making money. It is important to remember in the midst of the high aspirations and elevated purposes of the YCC, that its second purpose, "to provide gainful employment," is its greatest attraction, at least to youth who apply to nonresidential programs in areas like Syracuse and Oswego County. That purpose was clearly fulfilled by the programs we studied.

Participants generally expressed moderate satisfaction with the extent of their involvement in decision making, saying that they were consulted about what work was to be done and how it would be done. When asked who they would consult if they had an idea about the work, about as many said they would talk to the other participants as said they would talk to the staff. It seems safe to conclude that increasing participant involvement in decisions was not a burning issue in Syracuse or Oswego. In spite of the limited nature of the decisions participants were involved in - none had to do with overall program design or with policy matters - participants were generally satisfied with their involvement. In previous years we have found that only a few of the more mature YCC participants are much concerned about these broader and longer range decisions and wish they could have been involved in them.

We were curious about participants' judgments of the value of the work they had done. Only one person, in Syracuse, said the work was not valuable. In both programs, about twice as many participants said the work was defin-

itely important as said it was important but added qualifications. The reason most commonly given for its importance was that it improved the area, that is, the work made the area look good or the results were used by people. Four Syracuse respondents said the work was important because it was good for the participants. Six Oswego and one Syracuse respondent said it was important because of its value "for the ecology." Those who expressed reservations about its value, five in Syracuse and one in Oswego, cited the lack of use of the area worked on or the short duration of the result: "It will all grow back." Participants, therefore, judged the value of their work according to its perceived benefits to others and its durability.

Respondents were asked whether they preferred working alone or with a certain number of people. Their opinions varied widely, but clustered around working with from two to eight people. Most said whatever number they selected made the work go faster, but ten Oswego and four Syracuse participants said the number they chose made for more interesting talk while the work was going on. Only four respondents said they preferred working alone. The enjoyment of chatting while working was clearly an important factor to several participants.

Observers visited each program at least two times in addition to those times when other data were collected. Syracuse and Oswego were more frequently observed, about once a week. Both work sites could be visited during one

trip to Syracuse but the geographical dispersion of the Oswego work sites made visits to each site shorter and less frequent.

Analysis of the notes made by observers during or immediately after their visits suggests that three factors were particularly important: work, leaders, and organization. Certain types of work seemed much more appropriate and conducive to the YCC objectives than others. Some leaders seemed more effective than others. And some programs were organized more rationally and effectively.

The types of work that seemed most appropriate to YCC programs and most conducive to the kinds of behavior desired met the criteria stated by the participants: they were lasting and they were seen and used by other people. (Creating a park seemed more interesting than clear-cutting in the woods for wildlife habitat improvement.) Although participants did not state it explicitly, they seemed to have another criterion for valued work, the need for sophisticated tools and skills. Observers noted an informal hierarchy in the desirability of tasks. Working with an ax was more desirable than swinging a grass whip, and using a mason's trowel and level more desirable than using an ax. When asked about the jobs they preferred and those they would have liked to do, interview respondents in Oswego and Syracuse showed a definite preference for more technical jobs.

We applied yet another criterion to the kinds of work

we observed. We noted that simple, routine tasks called for, indeed allowed, little participant decision making. When work was of a routine nature, clearing brush was the most common example, then the range for decisions was limited to such relatively minor matters as what tool to use and where to begin. Work of a more complex nature provided many more opportunities for participant decision making. Several crews built wooden bridges across streams and that task especially seemed to call forth widespread and persistent participation in group decision making and to generate great pride. The complexity of the design and construction problems presented by the task, and probably the lack of resident experts, seemed to elicit questions and opinions at a much higher rate than more routine tasks.

Some sites offered a much higher proportion of tasks of this nature than others. Syracuse notably lacked both variety and complexity in work projects. Most participants spent most of their time in brush clearing. Monroe, Cayuga, and Cortland all presented a variety of tasks. Oswego showed great differences in tasks from one crew to another since the crews were separated geographically and worked independently of each other for the most part. Those Oswego crews engaged in more interesting or complex tasks generally demonstrated higher morale.

Two incidents at Syracuse illustrate the participants' desire for more complex and interesting work. One group of workers, apparently on their own initiative, began con-

structing a lean-to shelter in a wooded, little used section of the park. Because the structure might have been used for illicit activities they were required to tear it down and return to brush clearing. Their morale suffered tremendously. Another crew discovered in the park a rather grand stone stairway that had become overgrown. They spent some days enthusiastically pulling grass from cracks between the stones and trimming foliage to reveal the stairway. Despite the likelihood that it would continue to go unused, its relative permanence seemed to give them a sense that this work was of greater value than simply cutting weeds and they worked harder at it.

But the type of work being done, though very important, was not the only factor that seemed significant. The behavior of the crew leader also seemed to have a great impact. At one site in Oswego, for example, a crew spent the entire summer clearing brush but maintained high morale. There seemed to be two reasons. First, they were clearing the perimeter of a state-owned golf course and the golfers frequently complimented them on their work and remarked on how helpful it was. This recognition and confirmation of the value of their work seemed to counteract the boredom of the task. Second, the crew leader demonstrated unflagging dedication and enthusiasm, which was transmitted to the crew. Furthermore, she used some effective organizational devices such as naming sub-crew leaders and safety officers and setting goals for each sub-crew.

Another morale booster for this crew was the "fun and profit" derived from selling lost golf balls they found while working.

We tried to identify crew leaders who were authoritative in the sense that they set and maintained clear standards and exerted their power when appropriate, who were well-organized, who had an easy rapport with participants, and who were also good teachers. We found many of those, as well as some who fell short of the ideal. The spirit and performance of the crews seemed to be related to their leaders' behavior. But, while some leaders were clearly better prepared by training and disposition for the job than others, there were also influences outside the control of the crew leaders that either limited or enhanced their performance.

We have labelled those influences "organization." Included in this term are such matters as who controlled the land on which the work was being done, how much influence crew leaders had over work project selection, whether time and resources were available for planning environmental education and rainy day activities, and whether tools and materials were easily available when needed.

Cortland and Monroe had the simplest and apparently most effective organizations. Both programs were conducted on land under the control of the organization sponsoring the program, the county parks department in Monroe and the county Cooperative Extension association in Cortland,

though the Cortland program also included some work on school land. This meant that those planning the YCC program either had the authority themselves or were in close contact with those who had the authority to decide what work should be done. The result was a good variety of jobs, work that was interesting, educational, and worthwhile, and adequate tools and materials. Cayuga did work in state parks, but appeared to have excellent communications with park staff. A park staff member worked closely with the YCC staff throughout the summer. Oswego had a complex situation because of the many work sites. Some crews also worked at more than one site. Problems were evident at some sites, but in one case a work site was abandoned when the person controlling the property failed to provide promised materials. Although the sponsoring agency did not control all the property, they had enough alternative work sites that only ones judged to be appropriate were chosen or maintained.

Syracuse had the most complicated and least effective organization. Three agencies were involved, the mayor's office, which planned and coordinated the program, the city parks department, which provided the work, tools, and supervisors, and SYR, which recruited and paid the participants. Two major problems resulted from this organization. One was that the crew leaders were powerless to change the work assignments even though they soon realized that clearing brush was boring and not very educational. Their pow-

erlessness was exacerbated after a crew leader "fired" a participant for insubordination and SYR immediately re-assigned the participant to the other work site. Under the circumstances, crew leaders were deprived of real authority and could not be highly effective. In addition, staff to assist the two chief crew leaders were hired late and there was fairly high turnover through the summer. The lack of pre-program planning and the absence of paid staff planning time during the program meant that little environmental education was done and no serious attempts were made to improve the work projects. Staff had little sense of who was in charge or how to change things. Their morale suffered badly and participants' morale was low as a result. The criteria we developed for judging the quality of programs are summarized as follows:

1. Work

- a. Provides opportunities for participant decision making
- b. Is lasting
- c. Benefits many people
- d. Requires sophisticated tools and skills
- e. Is varied

2. Staff

- a. Are authoritative (neither permissive nor authoritarian)
- b. Have the power to change unsatisfactory work assignments

c. Are good teachers

d. Are accessible as counselors

3. Organization

a. Places control of work assignments in the hands of those who are responsible for the educational aspect of the program

b. Gives crew leaders adequate support (liaison with administrators, time for planning, resources for instruction, tools and materials for work).

Leader Questionnaire

The Leader Questionnaire is useful in discovering participants' perceptions of their leaders' characteristics. Participants responded to each item about their leader on a scale of (1) always (2) often (3) sometimes (4) seldom (5) never. Table 3.4 shows the distribution of responses of all YCC participants combined except Cayuga for each item in the Leader Questionnaire. Table 3.5 shows the relative standing of each YCC program except Cayuga on each item in the Leader Questionnaire. Numbers in parentheses are average item scores for each program. Lines under these scores are the result of a Newman-Keuls test for multiple comparisons. A line is drawn under subsets of groups for which no pair have significantly different means. For example, the single line under all groups for item #1 indicates none of the group means are significantly different from the others. For item #8, Monroe, Oswego, and Cortland do not

TABLE 3.4

Responses to
Leader Questionnaire Items
for Participants in YCC Programs

	Always	Often	Sometimes	Seldom	Never
1. He/she is someone I can talk to.	28.2%	30.1%	28.2%	10.7%	2.9%
2. He/she involves us in decisions.	28.4%	40.2%	18.6%	9.8%	2.9%
3. He/she praises us for a job well done.	33.0%	31.1%	23.3%	9.7%	2.9%
4. He/she is poorly organized.	2.9%	13.5%	27.9%	43.3%	12.5%
5. He/she can be counted on to do what he/she says.	26.2%	42.7%	27.2%	3.9%	0.0%
6. He/she works along with us.	44.2%	26.9%	15.4%	9.6%	3.8%
7. He/she knows what's happening on the job.	39.4%	41.3%	14.4%	1.9%	2.9%
8. He/she gets along well with the workers.	43.1%	36.3%	12.7%	6.9%	1.0%
9. He/she lets us loaf.	2.0%	5.9%	44.6%	29.7%	17.8%
10. He/she is open to disagreement.	30.1%	28.2%	24.3%	15.5%	1.9%
11. He/she knows when someone is trying to get away with something and does something about it.	15.5%	32.0%	37.9%	11.7%	2.9%
12. He/she jokes with us.	41.3%	36.5%	18.3%	3.8%	0.0%
13. He/she is respected by the workers.	32.6%	40.0%	21.1%	4.2%	2.1%
14. He/she gives special treatment to some workers.	12.4%	10.3%	23.7%	25.8%	27.8%
15. He/she calls attention to interesting things in the environment (like animal and plant life).	32.3%	35.4%	21.9%	8.3%	2.1%
16. He/she teaches us how to do things if we don't know how.	37.1%	32.0%	22.7%	7.2%	1.0%
17. He/she explains his/her actions to the group.	19.6%	43.3%	26.8%	8.2%	2.1%
18. He/she does not help us with problems.	5.2%	5.2%	22.7%	45.4%	21.6%
19. He/she comes up with new ways to approach a problem.	17.5%	41.2%	35.1%	4.1%	2.1%
20. He/she sets goals for the group.	28.9%	35.1%	25.8%	7.2%	3.1%

Responses from Cayuga YCC participants were not included in this table.

have significantly different means, nor do Oswego, Cortland, and Syracuse. However, no single line connects Monroe to Syracuse, indicating that these two groups have significantly different means.

In each YCC program except Cayuga all participants worked primarily with only one leader through the summer. Each participant filled out a Leader Questionnaire on their primary leader at the end of the summer. There were two main leaders in Syracuse, five in Oswego, three in Cortland, and four in Monroe. Thus, the camp means in Table 3.5 are actually average scores for the several leaders in each camp, weighted by the number of participants who filled out a questionnaire on each leader. As in other analyses, only responses from participants who attended both the pretest and posttest have been considered in Tables 3.4 and 3.5. Unfortunately, data from Cayuga cannot be used in the same way because most of the participants worked closely with several supervisors.

The items from the Leader Questionnaire will be discussed under headings that encompass more than one item and refer to general leader characteristics. Statistics in brackets are results of a one-way analysis of variance by group on the item in question.

Decisions. Item #2, "He/she involves us in decisions," drew "always" to "often" responses from 68% of all YCC participants. (See Table 3.4.) Monroe showed the most positive response, with 92% of the responses in one of

TABLE 3.5

Comparisons of Mean Leader Questionnaire
Item Scores among YCC Programs

1. He/she is someone I can talk to. Monroe (1.96) Oswego (2.32) Cortland (2.35) Syracuse (2.55)	11. He/she knows when someone is trying to get away with something and does something about it. Syracuse (2.41) Oswego (2.46) Cortland (2.50) Monroe (2.81)
2. He/she involves us in decisions. Monroe (1.64) Oswego (2.25) Syracuse (2.41) Cortland (2.45)	12. He/she jokes with us. Monroe (1.54) Oswego (1.64) Cortland (1.75) Syracuse (2.37)
3. He/she praises us for a job well done. Monroe (1.88) Cortland (1.95) Syracuse (2.13) Oswego (2.70)	13. He/she is respected by the workers. Monroe (1.64) Cortland (1.68) Oswego (2.20) Syracuse (2.50)
4. He/she is poorly organized. Oswego (3.25) Syracuse (3.37) Cortland (3.60) Monroe (3.81)	14. He/she gives special treatment to some workers. Cortland (3.21) Syracuse (3.33) Monroe (3.38) Oswego (3.88)
5. He/she can be counted on to do what he/she says. Cortland (1.80) Monroe (2.04) Oswego (2.14) Syracuse (2.27)	15. He/she calls attention to interesting things in the environment (like animal and plant life). Monroe (1.69) Cortland (2.16) Oswego (2.28) Syracuse (2.38)
6. He/she works along with us. Cortland (1.60) Monroe (1.81) Oswego (1.82) Syracuse (2.67)	16. He/she teaches us how to do things if we don't know how. Monroe (1.73) Cortland (1.79) Syracuse (2.22) Oswego (2.32)
7. He/she knows what's happening on the job. Monroe (1.69) Cortland (1.80) Syracuse (1.93) Oswego (2.04)	17. He/she explains his/her actions to the group. Monroe (2.15) Cortland (2.16) Syracuse (2.41) Oswego (2.44)
8. He/she gets along well with the workers. Monroe (1.46) Oswego (1.89) Cortland (1.90) Syracuse (2.18)	18. He/she does not help us with problems. Syracuse (3.37) Oswego (3.68) Cortland (3.74) Monroe (4.15)
9. He/she lets us loaf. Cortland (3.30) Monroe (3.40) Syracuse (3.57) Oswego (3.86)	19. He/she comes up with new ways to approach a problem. Cortland (2.00) Monroe (2.15) Oswego (2.28) Syracuse (2.74)
10. He/she is open to disagreement. Monroe (2.00) Cortland (2.15) Oswego (2.29) Syracuse (2.72)	20. He/she sets goals for the group. Cortland (2.05) Syracuse (2.19) Monroe (2.19) Oswego (2.36)

^a Responses from Cayuga YCC participants were not included in this table.

Note: Lines are drawn under subsets of groups for which no pair has significantly different means. The Newman-Keuls method for multiple comparisons was used with $p=.05$ for each set of comparisons. Numbers in parentheses are mean scores for each group on each item. Scores range from 1.00 (always) to 5.00 (never).

these two categories (not shown in any table). As indicated in Table 3.5, there is a significant difference among the group means for this item [$F(3,98)=3.39$, $p=.021$], with Monroe's participants indicating significantly more opportunities to contribute to decisions than participants in any of the other camps. Responses were generally not as positive for item #10, "He/she is open to disagreement," and there were no significant differences among group means.

Control. Responses were mostly in the "sometimes" and "seldom" categories for item #9, "He/she lets us loaf," although 18% overall responded "never." Item #11, "He/she knows when someone is trying to get away with something and does something about it," drew responses mostly in the "often" and "sometimes" categories. Neither of these items showed significant differences among group means.

Friendliness. Item #1, "He/she is someone I can talk to," drew "sometimes" to "always" responses from all groups, with no significant differences among group means. Item #8, "He/she gets along well with the workers," drew responses mostly in the "always" and "often" categories, although 39% of the participants in Syracuse responded from "sometimes" to "never" (not shown in any table). On this item there was a significant difference among group means [$F(3,98)=2.70$, $p=.049$]. Table 3.5 shows that Syracuse participants claimed their leaders got along well with the workers significantly less often than participants in the

other groups claimed. A similar but much stronger pattern is evident for item #12, "He/she jokes with us" [$F(3,100)=6.25, p=.001$].

Knowledge -- on the job. Item #7, "He/she knows what's happening on the job," drew generally positive responses from participants in all groups, with 80% of the responses falling in the "often" or "always" categories. There were no significant differences among group means. (Also see item #11 under control.)

Works. About 71% of the participants said their supervisor worked along with them (item #6) "often" or "always," although in Syracuse only 47% made this claim (not shown in any table). The difference among group means is significant [$F(3,100)=5.11, p=.003$]. Table 3.5 shows that participants in Syracuse indicated their leader worked along with them significantly less often than the participants in the other groups indicated.

Explains actions. Item #17, "He/she explains his/her actions to the group," drew responses mostly in the "sometimes" to "always" categories, with no significant differences between group means.

Sets goals. Item #20, "He/she sets goals for the group," drew general agreement, with 64% responding in the "always" or "often" categories. There was no significant difference among group means.

Praises. Item #3, "He/she praises us for a job well done," drew mostly "sometimes" to "always" responses in all

groups, although Oswego participants indicated receiving significantly less praise than the other groups [$F(3,99)=3.22, p=.026$].

Teacher/helper. Item #16, "He/she teaches us how to do things if we don't know how," drew responses mostly in the "sometimes" to "always" categories. There were no significant differences among group means. Item #18, "He/she does not help us with problems," drew responses mostly in the "sometimes" to "never" categories. On item #18 there was a significant difference among group means [$F(3,93)=2.75, p=.047$]. Table 3.5 indicates that Monroe's participants said their leaders did not help them with problems significantly less than participants in the other groups said. (Also see the discussion under staff relations of item #8 of the Camp Satisfaction Questionnaire.)

Environmental teacher. Item #15, "He/she calls attention to interesting things in the environment," drew mostly positive responses from all groups. There were no significant differences among group means.

Special treatment. Item #14, "He/she gives special treatment to some workers," drew a wider range of responses than most items. This may be because of the ambiguity of the item. Special treatment may be interpreted alternatively as "playing favorites" or as helping workers who need special help. Responses averaged in the "sometimes" or "seldom" categories, with no significant differences among group means.

Originality. Table 3.5 indicates there is a significant difference among group means [$F(3,93)=3.43$, $p=.020$] for item #19, "He/she comes up with new ways to approach a problem." Syracuse participants claimed to have significantly less innovative leaders than did the participants in either Cortland or Monroe. Oswego's mean was not significantly different from the other three groups.

Organization. Item #4, "He/she is poorly organized," had 71% of the responses in the "sometimes" or "seldom" categories. There were no significant differences among group means.

Dependability. Responses were generally positive to item #5, "He/she can be counted on to do what he/she says." There were no significant differences among group means.

Respect. Item #13, "He/she is respected by the workers," drew 76% of the responses in the "often" or "sometimes" categories. There was a significant difference among group means [$F(3,91)=5.26$, $p=.002$]. Table 3.5 shows that Syracuse participants indicated respect for their leaders significantly less often than did participants in either Monroe or Cortland, and the Oswego mean did not differ significantly from the other three groups.

Discussion

Interpreting group differences in responses to the Leader Questionnaire is complicated because participants were unable to compare their leaders to the leaders of

other programs. Assuming, however, that their judgments were based on similar standards, participants in Syracuse evaluated their leaders most harshly, rating them significantly lower than participants in the other programs rated their leaders on four characteristics: getting along with participants, working beside participants, originality, and being respected. Monroe participants, at the other end, rated their leaders significantly higher on two characteristics: involving participants in decisions and helping.

The Syracuse participants' ratings are consistent with our observations that crew leaders in Syracuse were overburdened, lacked administrative support, had less appropriate backgrounds, and were generally less effective than leaders in the other programs.

Camp Satisfaction Questionnaire

Some items in the Camp Satisfaction Questionnaire give us an indication of participants' perceptions of the quality of several aspects of their YCC summer experience. These items will be referred to as "process" items because they are related to the processes in the camp experiences which may have had significant impacts on the lives of the participants. Table 3.6 shows the distribution of responses for YCC participants on these items. Table 3.7 shows a breakdown of YCC camp means on these items. The "impact" items from the Camp Satisfaction Questionnaire will be discussed in later sections of this report.

TABLE 3.6

Responses to "Process" Camp
Satisfaction Questionnaire Items
for Participants in YCC Programs

	agree strongly	agree slightly	disagree slightly	disagree strongly
2. Boys seemed more capable than girls on most of the jobs.	43.2%	16.2%	16.2%	24.3%
3. We had all the tools and materials we needed to get our work done.	8.2%	17.3%	17.3%	57.3%
5. We had interesting projects to do on rainy days.	11.8%	7.3%	22.7%	58.2%
7. I think the work we accomplished was worthwhile.	56.3%	30.4%	10.7%	2.7%
8. When I didn't know how to do a job, staff members always offered ideas to help me do the job better.	34.8%	37.5%	16.1%	11.6%
9. Our work projects and assignments were well planned and coordinated.	11.7%	28.8%	27.9%	31.5%
10. The work was boring much of the time.	17.0%	33.9%	21.4%	27.7%
12. Workers from different family backgrounds got along very well here.	36.9%	31.5%	20.7%	10.8%
14. Staff members would sometimes take out their frustrations on the workers in unpleasant ways.	27.7%	17.0%	25.0%	30.4%
19. I think we were underpaid.	53.6%	21.4%	11.6%	13.4%
21. I wish I could have had more to say about planning the work and making rules.	31.3%	40.2%	17.0%	11.6%

On the Camp Satisfaction Questionnaire participants responded to statements about their camp on a scale of (1) agree strongly (2) agree slightly (3) disagree slightly (4) disagree strongly. Although the Camp Satisfaction Questionnaire was administered only at the end of the summer, only responses from those participants who took both the pretest and the posttest will be considered in the following analyses.

As with the Leader Questionnaire, Camp Satisfaction Questionnaire items will be discussed under a number of general headings, and statistics in brackets refer to the results of a one-way analysis of variance by group on the item.

Interesting Work. Responses were mixed to item #10, "The work was boring much of the time." A little over half of the participants agreed with this statement (see Table 3.6).² Although the Newman-Keuls test presented in Table 3.7 shows there is no significant difference between any pair of group means, a one-way analysis of variance indicates an overall difference among the means [$F(4,107)=2.81$, $p=.029$]. Syracuse participants indicated having the most boring work while Cayuga's participants claimed the least boring.

Worthwhile work. Although the accomplishment of

²Unless otherwise indicated, "agree" will be used to refer to both the "agree slightly" and "agree strongly" categories, and similarly for "disagree."

TABLE 3.7

Comparisons of Mean Scores of "Process"
Camp Satisfaction Questionnaire
Items among YCC Programs

2. Boys seemed more capable than girls on most of the jobs.	Syracuse (1.79)	Monroe (1.85)	Cortland (2.21)	Oswego (2.56)	Cayuga (3.50)
3. We had all the tools and materials we needed to get our work done.	Cayuga (2.00)	Cortland (2.58)	Oswego (3.19)	Syracuse (3.52)	Monroe (3.92)
5. We had interesting projects to do on rainy days.	Cortland (2.58)	Syracuse (3.14)	Cayuga (3.50)	Oswego (3.52)	Monroe (3.58)
7. I think the work we accomplished was worthwhile.	Syracuse (1.45)	Monroe (1.46)	Cayuga (1.55)	Cortland (1.63)	Oswego (1.89)
8. When I didn't know how to do a job, staff members always offered ideas to help me do the job better.	Cayuga (1.18)	Cortland (1.63)	Monroe (1.92)	Oswego (2.19)	Syracuse (2.62)
9. Our work projects and assignments were well planned and coordinated.	Cayuga (2.00)	Cortland (2.37)	Monroe (2.54)	Syracuse (2.97)	Oswego (3.44)
10. The work was boring much of the time.	Syracuse (2.31)	Oswego (2.33)	Cortland (2.58)	Monroe (2.92)	Cayuga (3.27)
12. Workers from different family backgrounds got along very well here.	Monroe (1.42)	Cayuga (1.60)	Cortland (1.89)	Oswego (2.44)	Syracuse (2.52)
14. Staff members would sometimes take out their frustrations on the workers in unpleasant ways.	Cortland (2.00)	Oswego (2.30)	Cayuga (2.45)	Syracuse (2.93)	Monroe (2.96)
19. I think we were underpaid.	Monroe (1.46)	Cayuga (1.55)	Oswego (1.70)	Cortland (2.00)	Syracuse (2.34)
21. I wish I could have had more to say about planning the work and making rules.	Syracuse (1.93)	Oswego (2.04)	Monroe (2.12)	Cayuga (2.18)	Cortland (2.32)

Note: Lines are drawn under subsets of groups for which no pair has significantly different means. The Newman-Keuls method for multiple comparisons was used with $p=.05$ for each set of comparisons. Numbers in parentheses are mean scores for each group on each item. Scores range from 1.00 (agree strongly) to 4.00 (disagree strongly).

worthwhile work might properly be considered an impact of the YCC, we are more concerned here with the effect of accomplishing worthwhile work on various aspects of personal development. There was strong agreement in all groups with item #7, "I think the work we accomplished was worthwhile," with no significant differences among group means.

Work coordination and planning. Three items measured different aspects of work coordination and planning. Item #9, "Our work projects were well planned and coordinated," drew general disagreement. Only slightly more than 40% agreed with this statement, while the modal category was "disagree strongly" with over 31%. Table 3.7 shows a rather complicated pattern of significant group differences for this item [$F(4,106)=6.94, p<.001$], with Cayuga's participants indicating greatest satisfaction and Oswego's participants the least. Responses to items #3 and #5 were even more negative. The majority of participants strongly disagreed that they had all the tools and materials they needed to get their work done (item #3), although there was a wide variation in group responses [$F(4,105)=13.56, p<.001$]. As shown in Table 3.7, Cayuga and Cortland participants showed the most satisfaction while Monroe participants showed the least. The majority of participants also strongly disagreed that they had interesting projects to do on rainy days (item #5). Table 3.7 shows that Cortland participants indicated significantly more satisfaction

on this item than participants in Cayuga, Oswego, or Monroe [$F(4,105)=3.66$, $p=.008$].

Staff-worker relations. Participants' relations with staff were measured by items #8 and #14. Participants were more complimentary of their staff than they were of work planning and coordination. Over 72% agreed that staff were helpful in offering ideas to help do jobs better (item #8). There was a rather complicated pattern of significant group differences [$F(4,107)=6.77$, $p<.001$]. As shown in Table 3.7, Cayuga participants claimed the most helpful staff while Syracuse participants claimed the least helpful staff. (Also see the discussion under teacher/helper of items #16 and #18 of the Leader Questionnaire.) Almost 45% agreed with item #14, "Staff members would sometimes take out their frustrations on the workers in unpleasant ways." Although Table 3.7 indicates there were no significant differences between pairs of groups, a one-way analysis of variance reveals an overall difference among group means [$F(4,107)=3.05$, $p=.020$]. Cortland claimed the staff with the least pleasant disposition while Monroe participants were less critical of their staff.

Although the majority of participants were complimentary of staff, there was still a fair percentage of participants who described their staff as unhelpful and sometimes unpleasant.

Interpersonal relations. About 68% agreed that workers from different family backgrounds got along very well

(item #12). As shown in Table 3.7, there is a significant difference among group means [$F(4,106)=6.96$, $p<.001$], with Monroe and Cayuga indicating significantly better interpersonal relations than Oswego and Syracuse, and with Cortland falling in between. Notice that disagreement with this item was strongest in Syracuse where ethnic diversity was the greatest of any program studied. (See Table 3.2.) About 55% of the Syracuse participants disagreed with this item (not shown in any table). For a further discussion of participant interpersonal relations see section 3.4.

Participant planning. Over 71% agreed that they wished they could have had more to say about planning the work and making rules (item #21). This could probably be said of most workers in most jobs, but this is still a discouraging finding since one of our major interests is with programs in which youth are given opportunities to make decisions and exercise responsibility. There were no significant differences among group means.

Pay. Agreement was also strong with item #19, "I think we were underpaid." Again, this could probably be said of workers in many jobs. YCC participants were paid minimum wage, \$2.35 per hour. There was a significant difference among group means for this item [$F(4,107)=2.97$, $p=.022$], with Monroe participants showing significantly more dissatisfaction with pay than Syracuse participants, and the other groups falling in between. Interestingly, Tables 3.1 and 3.2 indicated that Syracuse participants

ranked the lowest of any of the groups studied on various socio-economic indicators while Monroe was probably the most affluent group.

Sex-typed work. We were interested in item #2, "Boys seemed more capable than girls on most of the jobs," because of the stereotype of men and not women doing hard physical labor. The YCC gives males and females an opportunity to work side by side on the same jobs, although we noted that often females either were given or chose for themselves the "softer" jobs. Over 59% agreed with this statement at the end of the summer, and over 43% agreed strongly. The exception was Cayuga, where 80% disagreed and 70% disagreed strongly (not shown in any table). There was a significant difference among group means [$F(4,106)=5.35$, $p=.001$]. Cayuga had a female project director, an equal number of male and female participants, and many opportunities to talk informally about sexism.

Discussion

Some of the items in the Camp Satisfaction Questionnaire were closely related to items in the Leader Questionnaire and in the interview. Specifically, two Camp Satisfaction items, #8 and #14, were about staff, and one, #21, was about participant involvement in planning. Participants seemed harder on staff in their responses to the Camp Satisfaction items than in those to the Leader Questionnaire. This probably resulted from the wording of the

items. In the Camp Satisfaction Questionnaire the statements were (item #8) "When I didn't know how to do a job, staff always offered ideas to help me do the job better" and (item #14) "Staff members would sometimes take out their frustrations on the workers in unpleasant ways." The words "always" and "sometimes" might well account for the apparently harsher judgments on those two items. Participants who thought staff members were usually helpful would rate their staff members lower than the top rating because they were not always helpful. Similarly, those who thought staff members seldom took out their frustrations on workers would still agree that they sometimes did. The discrepancy illustrates the great dangers in generalizing from questionnaire responses.

The same dangers are revealed by the differences in conclusions that might be drawn regarding participants' feelings about being involved in decisions. Interviewees expressed general satisfaction. When asked in the Leader Questionnaire how often their leaders involved them in decisions, 68% of respondents said either always or often. But when presented in the Camp Satisfaction Questionnaire with (item #20) "I wish I could have had more to say about planning the work and making rules," over 71% agreed. Here again the wording may have a strong influence on responses. Participants were not necessarily strongly dissatisfied with their roles in decision making, but they responded positively to the suggestion that they might have had more

power.

The area of work coordination and planning, which, along with pay, received the greatest expressions of dissatisfaction from participants, is one that we also observed. To some extent, participants' complaints were surely a reflection of real but unavoidable problems. It is unlikely that any YCC program will run with machine-like precision, given their short lifetime, multiple goals, and heavy demands on staff talents. However, participants in different programs may have had different expectations about what was satisfactory organization. Furthermore, the complexity of supplying tools and materials varied with the demands of the projects. Clearing brush does not require much logistical support.

3.4 -- Does the YCC have a measurable impact on its participants?

Psychosocial Maturity and Decisions and Rules

Two-tailed t-tests were performed on all pre-post measures. When all of the YCC projects are considered as one combined group, two of the nine PSM subscales showed significant changes from pretest to posttest. The Trust Subscale showed a significant positive change [$t=2.29$, $df=113$, $p=.024$] from a mean score of 2.70 to 2.78. The Tolerance Subscale showed a significant negative change [$t=-2.14$, $df=113$, $p=.034$] from a mean score of 3.17 to 3.09. None of

the other PSM subscales showed a significant change. It should be noted that although these changes are statistically significant, the differences between mean pre- and posttest scores do not indicate large changes of attitudes.

The School Attitude Questionnaire showed a change in the negative direction [$t=-2.67$, $df=113$, $p=.002$] from a mean of 2.63 to 2.50, that is, participants evaluated their schools and school learning more negatively at the end of the summer.

Tests were also performed on items in the Decisions and Rules Questionnaire. Our only residential camp, Cayuga, was excluded from this analysis since the participants there had not been at home during the summer and thus had had no opportunity to experience changes in parental decision and rule-making behavior. Combining the four nonresidential YCC camps, none of the four items measuring family decision making showed any significant change. Of the eight rules listed, only one, "Eating dinner with the family," showed a significant change [$t=3.11$, $df=99$, $p=.002$]. At the pretest, 44% checked this rule as compared to only 30% at the posttest. However, there was no overall difference in the number of rules that participants checked off between the pretest and the posttest.

The tests performed above give us some indication what changes took place among the YCC participants over the summer, but they still give us little indication what the impact of the YCC was. The changes mentioned above may

have resulted from the summer YCC experience, but they may also have been caused by other influences not related to the YCC. To partially resolve this difficulty of interpretation, nonparticipant control group data were compared to YCC data for the two locations for which we had control groups, Oswego County and Syracuse.³ In Syracuse there was

³The statistical analysis used here, a general linear models procedure, is similar to others used later in this report and deserves some comment. For each subscale or questionnaire item, the dependent variable is the posttest measure. A hierarchical regression equation is then constructed, the first entry being the pretest measure. Thus, the effect of each participant's pretest level on his posttest score is controlled for, or partialled out of, each succeeding variable in the equation. This procedure is more powerful than using simple pretest - posttest difference scores (Campbell and Stanley, 1963, p. 23; Cohen and Cohen, 1975, pp. 378-393). Other variables entered in the equation are, in order, the participant's sex, age (dummy coded as a categorical variable), whether the participant lived in an intact family or broken family, whether the participant had ever had a regular paying job, whether the participant had taken part in a school activity during the past six months, and the group to which the participant belonged (in the present analysis, YCC versus control). Thus, the group effect on the posttest score has partialled from it not only the pretest score, but also a number of other factors which may have been correlated with group membership and which may have also affected the posttest score. In this way, we can be more certain that the group effect is pure, i.e., it is not contaminated by other factors, or at least not those entered in the equation. Finally, six interaction terms are entered in the equation. These are the interactions of group with each of the other variables in the equation. These interactions are not entered hierarchically; each interaction has partialled from it not only all the main effects but also the effects of each of the other interactions. However, the interactions are not partialled from any of the main effects, although their presence in the equation reduces both the error variance and the error degrees of freedom in the significance tests for the main effects. The resulting measure of "gain" is actually an adjusted posttest score, i.e., adjusted for the pretest level and the other variables preceding the effect of interest in the regression

a significant difference between the YCC and control group on only one of the nine PSM subscales. On the Tolerance Subscale the Syracuse YCC showed significantly lower adjusted posttest scores than the Syracuse control group [$F(1,27)=4.74$, $p=.0383$]. There was a significant group effect for the School Attitude Questionnaire [$F(1,27)=4.77$, $p=.0379$]. Here again, the Syracuse YCC showed significantly lower adjusted posttest scores than the Syracuse control group. On the Decisions and Rules Questionnaire there was a significant main effect for group on question #4 [$F(1,11)=6.09$, $p=.0312$].* Responses indicated that the YCC had more effect than the control condition on influencing fathers to explain the reasons for their decisions or rules. Of the eight rules listed, there was a significant group effect only for rule #8, "Eating dinner with the family" [$F(1,25)=7.06$, $p=.0136$]. The YCC participants checked this rule more often at the end of the summer than at the beginning relative to the control group. There was no significant difference between groups in the total

equation. This analysis is more accurate and usually more powerful than a simple one-way analysis of variance, and the general linear models procedure is more flexible than an analysis of covariance. Also, although the analysis was designed primarily for the determination of group main effects discussed in the present section, other terms in the equation allow the testing of hypotheses which will be discussed in the following sections of this report.

*The sample size was smaller in this analysis than in others because over half of the participants in the Syracuse groups were not living with their fathers, and thus could not answer the question.

number of rules checked.

In Oswego there was a significant difference between the YCC and control group on the Self-Reliance Subscale [$F(1,33)=4.45$, $p=.0426$]. The YCC participants showed significantly higher adjusted posttest ^{scores} on this subscale than the control group members. There were no other significant group effects for the other PSM Inventory subscales, the School Attitude Questionnaire, or the first four questions of the Decisions and Rules Questionnaire. Of the eight rules listed on the Decisions and Rules Questionnaire, there were significant group effects for rule #4, "Time spent watching T.V." [$F(1,31)=4.59$, $p=.0401$], and for rule #6, "Against going around with certain girls" [$F(1,31)=5.46$, $p=.0133$]. The YCC participants checked off both of these rules more often at the end of the summer than at the beginning relative to the control group. The YCC participants also checked off significantly fewer rules at the end of the summer than at the beginning relative to the control group [$F(1,31)=4.24$, $p=.0479$].

It is difficult to draw conclusions from the above analyses on the effects of the YCC on psychosocial maturity, school attitude, or parent-youth decision making practices. The effects were completely different in Syracuse than they were in Oswego County. This might be expected since both the populations and the programs involved were very different from one another. It may well be that sweeping generalizations about the effects of the YCC on

its participants are inappropriate.

We also stress the warning that the above results are subject to question because of the difficulty in obtaining random control groups of nonselected YCC applicants and because of the difference in testing conditions between the YCC participants and the control group members. Either of these problems may have severely biased the results in unknown ways.

The overall decline in Tolerance scores and the decline in the Syracuse YCC as compared to the Syracuse control group give some cause for alarm. Certainly credit cannot be given to YCC for raising Trust scores without taking responsibility for declines in Tolerance. Given the lack of consistency in outcomes, it seems most prudent to conclude that there is no evidence of strong impact from participation in the YCC programs in the study.

The school attitude questions demonstrate a bit more consistency, but whether this result is positive is a matter of judgment. Critics of the public schools might argue that YCC participants obtain a more accurate view of school learning through their experience in a nonschool learning program. On the other hand, it may not help YCC participants' life chances to become disaffected by school.

Camp Satisfaction Questionnaire

Another way we measured the effect of the YCC was by means of the Camp Satisfaction Questionnaire. As discussed

in the previous section, we have drawn a distinction between "process" items and "impact" items. The "process" items give us information on the processes in the camp experiences which may have led to significant impacts on the lives of the participants. "Process" items were discussed in the previous section. Table 3.8 shows the distribution of responses to "impact" items from the Camp Satisfaction Questionnaire for all five YCC programs combined. Although this questionnaire was administered at the posttest only, in order to maintain the same sample of participants as in other analyses we included in the table only the responses from those participants who took both the pretest and posttest. This also assured us that all respondents participated at their YCC camp for the entire summer.

Satisfaction. Item #1, "I really liked the YCC summer program," is a measure of total camp satisfaction. On the whole, the YCC camps studied received a good rating. About 80% of respondents agreed⁵ with the statement, and almost half agreed strongly.

Interpersonal relations. A number of items concerned participants' relations with each other. There was strong agreement with item #13, "I have developed quite a few friendships with other workers in the program." There was

⁵Unless otherwise indicated, "agree" will be used to refer to both the "agree slightly" and "agree strongly" categories, and similarly for "disagree."

TABLE 3.8

Responses to "Impact" Camp
Satisfaction Questionnaire Items
for Participants in YCC Programs

	agree strongly	agree slightly	disagree slightly	disagree strongly
1. I really liked the YCC summer program.	48.6%	31.5%	9.9%	9.9%
4. This job was good experience for future jobs.	49.1%	34.5%	10.9%	5.5%
6. I learned a great deal about how to use tools.	28.8%	27.0%	22.5%	21.6%
11. I think I learned quite a bit about the environment in our group's environmental education program.	31.3%	38.4%	16.1%	14.3%
13. I have developed quite a few friendships with other workers in the program.	63.1%	27.0%	5.4%	4.5%
15. I have learned a great deal about how to work on projects that require teamwork.	39.3%	44.6%	6.3%	9.8%
16. I feel more comfortable around adults now than I did before the program.	10.8%	28.8%	36.9%	23.4%
17. I have learned a great deal about how I can help people in my community become active in working on environmental problems.	17.0%	42.9%	22.3%	17.9%
18. I have learned a great deal about how to get along better with people who are different from myself. (Different in any way -racially, ethnically, personality, etc.)	27.9%	46.8%	17.1%	8.1%
20. As a result of this program I have begun to think more seriously about looking into educational or career opportunities in environmental conservation or related areas.	21.1%	29.4%	24.8%	24.8%

also fairly strong agreement with item #15, "I have learned a great deal about how to work on projects that require teamwork." There was a diversity of opinions on item #16, "I feel more comfortable around adults now than I did before the program," but over 60% disagreed. Over 68% agreed that workers from different family backgrounds got along very well (item #12, Table 3.6), and over 75% agreed that they had learned a great deal about how to get along better with people who are different from themselves (item #18). It would appear that relationships were generally good among participants, and opportunities for the learning of interpersonal skills among peers were available to and used by participants. However, participants did not claim to have learned as much about getting along with adults, perhaps because they were relatively skilled at this before the summer began, but more likely because they were given fewer opportunities for this type of learning.

Learning. Ratings on the amount of learning related to the work experience were mixed. This was particularly true of item #6, "I learned a great deal about how to use tools." Most participants said they had learned quite a bit about the environment in the environmental education program (item #11), but participants were less sure that they had learned how to help their community become active in working on environmental problems (item #17). Over 83% of the participants agreed with item #4, "This job was good experience for future jobs," and almost half agreed

strongly. This must have included a fair number of participants who were not planning to go into environmental conservation or related areas (item #20). This is especially significant since over half had not had a previous regular paying job. (See Table 3.1.)

Future plans. Item #20 is a measure of the YCC's impact on the participants' plans for the future. About half indicated they were thinking about educational or career opportunities in environmental conservation or related areas as a result of the YCC. Of course, this does not mean that they will actually pursue such education or careers, but it does indicate that the YCC had an effect on the thoughts and plans of a considerable number of its participants.

3.5 -- Do some YCC programs have more impact than others?

Psychosocial Maturity and Decision and Rules

An analysis similar to the one used in section 3.4 (see footnote 2) was performed using the five YCC programs. In this way we were able to test for overall differences in impact among the YCC programs while statistically controlling for several important personal background characteristics of the participants, and removing from the error term the variance due to those characteristics' interactions with membership in one of the five programs.

Of the nine PSM subscales, three showed main effects

for group membership: the Self-Reliance Subscale [$F(4,67)=2.97$, $p=.0256$]; the Communication Subscale [$F(4,67)=3.26$, $p=.0167$]; and the Social Commitment Subscale [$F(4,67)=2.77$, $p=.0339$]. Table 3.9 shows the relative

TABLE 3.9

Comparisons of Mean Residual
Gains among YCC Programs

Psychosocial Maturity Inventory:

Self-Reliance Subscale

Syracuse	Monroe	Cortland	Oswego	Cayuga
(2.99)	(3.02)	(3.06)	(3.28)	(3.39)

Communication Subscale

Cortland	Monroe	Syracuse	Oswego	Cayuga
(2.93)	(2.95)	(2.96)	(3.08)	(3.40)

Social Commitment Subscale

Monroe	Cortland	Syracuse	Oswego	Cayuga
(2.95)	(2.98)	(3.01)	(3.10)	(3.38)

School Attitude Questionnaire

Monroe	Oswego	Cortland	Syracuse	Cayuga
(2.57)	(2.82)	(2.87)	(2.90)	(3.03)

Note: Lines are drawn under subsets of groups for which no pair of groups have significantly different means. The Newman-Keuls test for multiple comparisons was used with $p=.05$ for each set of comparisons. Numbers in parentheses indicate the relative standing of each group on residual gain.

standing of each YCC program on these three PSM subscales.

Numbers in parentheses are average subscale scores for each group on the posttest after the effects of the pretest and the other personal background variables have been partialled out of both the posttest score and the group variable. These will be referred to as adjusted posttest scores. Lines under these scores indicate the result of a Newman-Keuls test for multiple comparisons. A line is drawn under subsets of groups for which no pair of groups has significantly different means. Thus, Table 3.9 shows that on the Self-Reliance Subscale Cayuga showed the highest adjusted posttest average, and its average was significantly higher than all other YCC programs except Oswego. Syracuse, Monroe, Cortland and Oswego did not have adjusted posttest scores that were significantly different from each other. A similar pattern emerges in the Communication and Social Commitment Subscales, except that in these subscales Cayuga is by itself. Cayuga shows an adjusted posttest mean far above any of the other four YCC programs, while the other four programs have means that are not significantly different from one another. Of the six other PSM subscales which did not show significantly different group means on adjusted posttests, Cayuga ranked first on adjusted posttest means on all but the Trust Subscale in which it ranked a close second to Monroe. Cayuga was the only residential program studied, and these results are similar to results reported in Appendix A which indicate that residential programs in general have a more positive

impact on their participants than nonresidential programs.

Camp Satisfaction Questionnaire

The Camp Satisfaction Questionnaire can also give us some insight into how the five YCC programs affected their participants differently. Table 3.10 shows the relative standing of each YCC program on each of the "impact" items. Numbers in parentheses are mean scores for each group on each item. Lines underneath the group means are the results of Newman-Keuls tests for multiple comparisons. (Also refer to Table 3.8 for the distribution of responses to impact items for all YCC projects combined.)

As can be seen in Table 3.10, the Newman-Keuls test indicates that there are no significant differences between single group means for any of the impact items. One-way analyses of variance also indicate no overall significant differences among group means on any of these items with the single exception of item #1, "I really liked the YCC summer program" [$F(4,106)=2.912$, $p=.025$]. Table 3.11 reveals a significant association between group membership and camp satisfaction for this item [$X^2=24.68$, $df=12$, $p=.0164$]. There was a greater percentage of dissatisfied participants in Syracuse than in any of the other groups. Observations of managerial problems and work projects of questionable value in Syracuse suggest some sources of dissatisfaction at Syracuse; but participants there did not respond differently to items concerning whether or not the

TABLE 3.10

Comparisons of Mean Scores of "Impact"
Camp Satisfaction Questionnaire
Items among YCC Programs

1. I really liked the YCC summer program.	Cayuga (1.40)	Monroe (1.46)	Oswego (1.78)	Cortland (1.89)	Syracuse (2.24)
4. This job was good experience for future jobs.	Cayuga (1.11)	Cortland (1.58)	Monroe (1.65)	Oswego (1.89)	Syracuse (1.93)
6. I learned a great deal about how to use tools.	Cortland (1.84)	Syracuse (2.28)	Cayuga (2.50)	Oswego (2.56)	Monroe (2.62)
11. I think I learned quite a bit about the environment in our group's environmental education program.	Cayuga (1.45)	Cortland (2.00)	Monroe (2.23)	Oswego (2.26)	Syracuse (2.28)
13. I have developed quite a few friendships with other workers in the program.	Monroe (1.35)	Cayuga (1.40)	Oswego (1.56)	Syracuse (1.59)	Cortland (1.63)
15. I have learned a great deal about how to work on projects that require teamwork.	Cayuga (1.36)	Syracuse (1.79)	Monroe (1.81)	Cortland (1.95)	Oswego (2.15)
16. I feel more comfortable around adults now than I did before the program.	Cortland (2.37)	Oswego (2.69)	Cayuga (2.73)	Monroe (2.77)	Syracuse (2.97)
17. I have learned a great deal about how I can help people in my community become active in working on environmental problems.	Cayuga (2.09)	Cortland (2.37)	Syracuse (2.41)	Monroe (2.42)	Oswego (2.56)
18. I have learned a great deal about how to get along better with people who are different from myself. (Different in any way -- racially, ethnically, personality, etc.)	Cayuga (1.80)	Syracuse (1.97)	Monroe (2.04)	Cortland (2.11)	Oswego (2.22)
20. As a result of this program I have begun to think more seriously about looking into educational or career opportunities in environmental conservation or related areas.	Cayuga (2.10)	Oswego (2.33)	Monroe (2.52)	Cortland (2.68)	Syracuse (2.79)

Note: Lines are drawn under subsets of groups for which no pair has significantly different means. The Newman-Keuls method for multiple comparisons was used with $p=.05$ for each set of comparisons. Numbers in parentheses are mean scores for each group on each item. Scores range from 1.00 (agree strongly) to 4.00 (disagree strongly).

work was worthwhile (item #7) and whether or not the work was boring (item #10) than participants in other groups.

TABLE 3.11

Comparisons among YCC Programs of
Responses to Camp Satisfaction Questionnaire
Item #1:

"I really liked the YCC summer program."

	Syracuse	Oswego	Cortland	Monroe	Cayuga	totals
agree strongly	10 34.5%	10 37.0%	8 42.1%	18 69.2%	8 80.0%	54 48.6%
agree slightly	9 31.0%	14 51.9%	6 31.0%	5 19.2%	1 10.0%	35 31.5%
disagree slightly	3 10.3%	2 7.4%	4 21.1%	2 7.7%	0 0.0%	11 9.9%
disagree strongly	7 24.1%	1 3.7%	1 5.3%	1 3.8%	1 10.0%	11 9.9%
totals	29 100.0%	27 100.0%	19 100.0%	26 100.0%	10 100.0%	111 100.0%

Note: Numbers refer to the number of responses in each cell.
Percentages are column percentages.

(See Table 3.7.) The lack of opportunity to compare the value of their work projects with that of other programs may have led Syracuse participants to respond positively. In any case, we cannot say that they were less satisfied because they perceived the work to be less worthwhile.

Crew Differences

For these analyses we wanted to isolate the effects of

various leadership qualities of the crew supervisor on his or her workers. Therefore, we chose to analyze scores from only those participants who worked under only one crew supervisor with little or no influence from other supervisors. We further reduced the sample by stipulating that crews must have had at least four members but no more than ten members (not including the crew supervisor), and that we have both pretest and posttest information, including a completed Leader Questionnaire, from at least three members of each crew. This insured us that the participants of interest were in medium sized crews and were under the influence of the same leader for at least seven weeks. In order to maximize the size of our sample, we included participants in the Oswego CETA program who qualified by the above criteria. By these criteria we selected twelve crews in the Oswego CETA, Oswego YCC, and Monroe YCC programs, with a combined total of 67 participants.

An analysis of covariance was performed for each of the PSM subscales with the posttest score as the dependent variable and the pretest score as the covariate. The participant's crew membership and the interaction of the pretest score with crew membership were entered as independent variables. There was a significant main effect for crew only on the Change Subscale [$F(11,43)=2.71$, $p=.0096$], indicating adjusted posttest means were significantly different among the crews. There were no significant interactions of crew with the pretest score.

We also performed a one-way analysis of variance on all of the Leader Questionnaire and Camp Satisfaction Questionnaire items with the participant's crew membership as the independent variable. There were significant effects for crew membership on most of the "process" Camp Satisfaction items (see Table 3.6 for a list of items), but there were not significant crew membership effects on most of the "impact" items (see Table 3.8 for a list of items). There were also significant effects for crew membership on most of the Leader Questionnaire items. Remember that the Leader Questionnaire items measure the participants' perceptions of their leaders' characteristics and quality, and so are also "process" items. A full presentation of the differences among the twelve crews on each item is beyond the scope of this paper, but it is clear from inspection of the results that certain crews tended to get positive ratings on many of the items while other crews tended to get negative ratings. Although crews differed significantly on many measures of "process," they did not differ significantly on many measures of "impact" as measured either by the PSM Inventory and the Camp Satisfaction Questionnaire.

Observations and Interviews

In addition to being somewhat disappointed in the small number of differences among programs on our outcome measures, which reduces the interest of our study, we were

surprised. Our surprise resulted from our having observed what we thought to be substantial differences among the programs that were not reflected in the outcome measures. As noted at several points above, Syracuse seemed deficient in many respects, Oswego had some strong and some weak crews, while Cortland, Monroe, and Cayuga all appeared to be good programs. Frankel (1978) had found some significant increases in PSM scores among Cortland YCC participants in 1976, and we expected these to be replicated. With the exception of Cayuga's gains, however, which can be attributed in large part to its residential nature, our measures failed to corroborate our judgments about program quality.

After the observation data had been analyzed and the three factors of work, staff, and organization identified, as reported in section 3.3, we searched for other analyses and other outcome measures that might support our qualitative judgments. We decided to use attendance records as an unobtrusive measure of the participants' attitudes toward the programs. Observers ranked each work site as either high or low according to type of work done and leader performance. This ranking could be done only for Oswego, Cortland, and Syracuse because our observational data on Monroe were inadequate. It was not done for Cayuga because the crew leaders changed frequently and because attendance was not a useful indicator of attitudes in a residential program. Oswego provided the most interesting case because

there was considerable variation from crew to crew there. All Syracuse crews were rated low and all Cortland crews high. Analyses were performed for crews from all three programs together to find program differences and for Oswego alone to find differences among crews in the same program.

Attendance was taken from the official time sheets, obtained from the directors after the programs were completed. It was coded for each individual as the percentage of time from hiring to termination that the person was paid for working. Those who were enrolled for less than half of the program period were excluded.

Taking the three programs together, a statistically significant but moderate correlation of .29 ($p < .001$) was found between attendance and our rating of project quality. But perhaps of greater significance was the fact that crews with leaders rated low had, in addition to lower attendance rates, significantly greater standard deviations in attendance ($p < .001$). That is, in crews with low rated leaders there was a much larger range of attendance records than in the crews with leaders who were rated high. Using the Oswego YCC and CETA crews only, however, the correlation between attendance and project quality rating was much lower and nonsignificant, although the standard deviations remained significantly different ($p < .001$). We also found, by including other variables in the analysis, that attendance seemed to correlate highly with sex, family income,

and pretest scores on the Social Commitment and Identity Subscales of the PSM.

We also found no main effects for this quality rating when using it in an analysis of covariance on PSM subscale posttest scores with PSM pretest scores as the covariate. That is, there was no relationship between quality as we judged it and effect of the program on participants as measured by the PSM.

Our analysis suggests that attendance is a function of both leader/work quality and participant characteristics. In particular, participants' Social Commitment, as measured by the PSM, appears to be a good predictor of attendance. This is curious, because the Work Orientation Subscale would appear to be more directly related to attendance but proved not to be. We believe this raises questions about the validity of the PSM, but those questions must be pursued elsewhere.

Although the impact of program quality on participant outcomes was ambiguous, we believe the criteria for assessing program quality suggested by the interviews and observations merit continued attention. These criteria were discussed in section 3.3.

3.6 -- Other Analyses

Several other types of analyses have been performed on the data. These analyses have generally given results that form no interpretable pattern. We will give a brief des-

cription of some of these analyses and their results.

The effect of sex, age, intact family, previous regular paying job, and previous school activities. Footnote 3 (pp 64-65) described an analysis in which a number of personal background variables were used as covariates in a regression equation used principally to discover the effect of the participant's group membership. However, these covariates may also be examined as separate effects. The information was taken from the Personal Background Questionnaire, questions 1, 3, 5 (coded dichotomously as living with both mother and father versus all other categories), 8, and 9 (coded no school activities versus one or more). When all the YCC groups are included in the analysis there are main effects for sex on three of the PSM subscales: Roles [$F(1,67)=6.47$, $p=.013$]; Social Commitment [$F(1,67)=6.64$, $p=.012$]; and Tolerance [$F(1,67)=5.56$, $p=.021$]. In all three subscales, females had higher adjusted posttest means than males.

The higher female gains are consistent with findings in both Frankel's and Rosenberry's samples, though Tolerance is the only subscale in which that sex difference appears consistently. Tolerance inexplicably seems to be the most changeable of the subscales, showing both pre-to-post changes and group differences more frequently than any other. The fact that girls seem to gain more than boys, though in different ways from one sample to another, may indicate that the YCC experience is a more powerful one for

young women than for young men. Perhaps engagement in hard physical labor outdoors is sufficiently unusual for females that it has a greater impact on them. It would be easier to support this claim if the sex differences occurred on the same subscales in each sample.

In addition to being one of the few consistent findings among our three samples, this sex difference is one of the few phenomena we can identify that has parallels in both "impact" and "process" measures. When asked in the Camp Satisfaction Questionnaire to respond to the statement, "Boys seemed more capable than girls on most of the jobs" (item #2), participants divided clearly along male/female lines. 13.7% of the females agreed with the statement compared to 75.6% of the males. Using all four response categories and comparing male to female responses, the association between sex and responses was highly significant [$\chi^2=43.08$, $df=3$, $p<.0001$]. (Not shown in any table.) Even though the boys may not have concurred, the girls apparently felt that they could do their share of the work. This feeling may have contributed to their greater gains as measured by the PSM Inventory.

Aside from sex differences, there were no other main effects for any of the other personal background variables. There were some interactions of these variables with the group membership variable, but these interactions are difficult to interpret and may be only spurious effects. Therefore, they will not be discussed in this report.

This analysis was repeated for each of the locations for which we had control groups, Syracuse and Oswego County. In these analyses the group variable is coded dichotomously as YCC versus control. The effects of interest concerning the personal background variables would be interactions between personal background and group membership. This would indicate that the YCC had an effect for some types of participants and not others. However, there were no significant interactions of this type.

The effect of race, family income and size of the participant's home community. An analysis of covariance was performed on the five YCC groups for each of the PSM subscales with the posttest PSM subscale score as the dependent variable and the pretest PSM subscale score as the covariate. The independent variables were the size of the participant's home community, the participant's family income (both variables coded as presented in Table 3.2, excluding missing data), the participant's sex, and the participant's age coded high (ages 17 or 18) or low (ages 15 or 16). There were no significant main effects for income, although on several of the subscales the "below \$5,000" category did rather poorly. As for the size of the participant's home community, there were significant main effects on two subscales: Tolerance [$F(2,61)=3.517$, $p=.035$]; and Change [$F(2,61)=3.214$, $p=.046$]. On both subscales the "under 2,500" category did rather well while the "over 50,000" category showed lower adjusted posttest

scores than average. This was also a general trend on several of the other subscales. The main effects for age and sex have already been discussed. There were no significant interactions of income with town size, nor did these factors interact significantly with either age or sex.

Since almost all of the nonwhites were black and almost all of them were in Syracuse, we ran the race analysis using only the participants in Syracuse. Of those for whom we have complete information, there were 7 whites and 14 blacks, making significant results extremely difficult to obtain. The same type of analysis of covariance as discussed above was used except with race (coded white versus black), income, sex and age (coded as above) as the independent variables. There were no significant main effects for race in Syracuse on adjusted posttest scores for any of the PSM subscales, nor were there any noticable trends.

Participant perception analysis. We were interested in the association of the PSM subscales and the School Attitude Questionnaire with several items from the Camp Satisfaction Questionnaire and the Leader Questionnaire. An analysis of covariance was used identical to the one discussed in footnote 3 (pp. 64-65) except that the group variable was replaced by the questionnaire item. The items from the Camp Satisfaction Questionnaire included in this analysis were:

1. I really liked the YCC summer program.
7. I think the work we accomplished was worthwhile.

12. Workers from different family backgrounds got along very well here.

The items from the Leader Questionnaire included in this analysis were:

1. He/she is someone I can talk to.
2. He/she involves us in decisions.
6. He/she works along with us.
8. He/she gets along well with the workers.
11. He/she knows when someone is trying to get away with something and does something about it.
13. He/she is respected by the workers.
16. He/she teaches us how to do things if we don't know how.

There were a few significant associations between these items and the adjusted posttest scores on the PSM subscales and the School Attitude Questionnaire, but they followed no easily interpretable pattern, and were few enough to be considered spurious. Therefore, they will not be discussed in this report.

Analyses involving the CETA comparison group. An analysis similar to the one described in footnote 3 (pp. 64-65) was performed with the two groups being the Oswego YCC and the Oswego CETA crews. These two groups lived in the same area and were of the same approximate ages, but differed in family income, the CETA participants coming from families below the official poverty level. Both the CETA and YCC crews did essentially the same kind of work.

The YCC crews scored significantly better on adjusted posttest scores than the CETA crews on two of the PSM subscales: Self-Reliance [$F(1,27)=7.24, p=.012$]; and Social Commitment [$F(1,27)=4.24, p=.049$]. There were no significant interactions of personal background variables with significant group membership. There were no group effects or interactions on any of the items from the Decisions and Rules Questionnaire.

The higher YCC scores are particularly interesting in view of the lack of effect of personal background variables, which certainly were somewhat different given the income criteria for participation in CETA, and in view of the rather high marks given to the summer experience by CETA participants, in many cases higher than those given by Oswego YCC participants. One explanation is that the phenomenon of negative labelling on youth, that is, creating special programs for delinquent or troublesome or poor youth which then stamp participants with an undesirable characterization (see Brennan, 1974), was at work here. Although CETA participants did the same work, they were identified as low-income and therefore gained less in Self-Reliance and Social Commitment as a result of the experience. To gain in credibility, this explanation would have to be tested as a hypothesis rather than offered as it is here after the finding has been made.

PART 4

Conclusions and Recommendations

4.1 -- Conclusions

It is appropriate at this point to refer to the first pages of this report where the purposes of the study and of the YCC were stated. The study was not intended to evaluate the three major YCC objectives, accomplishing conservation work, providing employment to youth, and increasing environmental understanding. We have noted that the second objective, which was the most important to the youth we interviewed, was clearly accomplished. The first was too, though we suggested that some of the work seemed more valuable than other work that was done. We made no effort at all to evaluate the third objective.

Our interest was in the more general purposes of the YCC, embodied in the terms, "self-dignity and self-discipline," "work and relate with peers and supervisors," "build lasting cultural bridges." First, we attempted to assess the impact of YCC on these and other aspects of "personal and social development." We did not find convincing evi-

dence of strong impact. Second, we compared the impact of different YCC projects, and again found little difference in impact, except that the residential program, Cayuga, seemed to have greater impact than the nonresidential programs. Third, we collected and presented data regarding the operations of the different YCC programs, but what seemed to us to be important differences in program quality had little measurable impact on participants. However, the program that seemed to us to be most poorly organized, Syracuse, was also the program about which participants expressed the greatest dissatisfaction. Our fourth purpose, the development of instruments and strategies for future research, is addressed below in recommendations regarding research.

Why didn't we find more clearcut differences, either between pre- and posttests or among programs? If we could answer this question with assurance, we would have a more interesting and useful report to make. We are forced to speculate, but such speculation is important because it relates to both the nature of YCC and the challenge of evaluating YCC and similar programs.

There are two logical possibilities that would account for our finding of little or no impact:

1. There was no impact.
2. We were unable to measure the impact.

Outside evaluators are inclined to offer the first explanation in situations such as this, demonstrating their objec-

tivity with regard to the program being evaluated but also revealing their unexamined faith in the power of their craft. Program advocates in the same situation assert the second explanation, charging the evaluators with insensitivity and incompetence for their failure to document the wonderful things that anyone who really knew the program could see going on.

As the reader might infer from the way in which these positions have been stated, we find ourselves somewhere in between, believing strongly in the potential benefits of the YCC and similar programs, having some doubts about the power of current instruments and methods for assessing those benefits, yet committed to the goal of finding appropriate means of assessment because they are needed both to shed light on important processes of human development and to inform program developers and sponsors of the most effective program models. We shall address each of these possibilities in more detail, therefore, not to choose one or the other but to generate some alternative explanations for our findings that might be explored in future research. It should be noted that the two are not mutually exclusive; they might both be true.

The first possibility, that there was no impact, has at least two different explanations. Either we may have chosen YCC programs that happened to be ineffective or the YCC in general may not have a measurable impact on participants. One cannot pretend to carry out an evaluation with-

out allowing for the finding that the program being evaluated does not work.

The second possibility, that we were unable to measure the impact, might be attributed to at least three reasons. First, we might have chosen the wrong outcomes. The YCC may have powerful effects on participants but those effects might be entirely different from the effects we tried to measure. Second, the instruments we selected may have been insensitive to real changes that they were designed to measure; i.e., they may have been at worst invalid or at best inappropriate. Third, we may have identified areas in which the YCC had a real impact and chosen instruments that could have been expected to measure that impact, but administered those instruments in ways that negated their sensitivity and utility. The consideration of these possibilities is assisted by the results of two other studies of the YCC using the Psychosocial Maturity Inventory as an outcome measure. One was conducted by Frankel (1978) on the 1976 Cortland YCC program. The other was conducted by Peg Rosenberry in 1977 in several federally-sponsored programs. Our analysis of the data she collected is reported in Appendix A. In both of those samples, participants in general showed an increase in PSM scores over the summer. For Frankel's sample, two subscales, Self-Reliance and Tolerance showed significant increases and one more, Social Commitment, showed increases approaching significance. Frankel administered six of the

nine PSM subscales. In Rosenberg's sample, five of the nine subscales she administered showed significant gains, Work Orientation, Trust, Communication, Tolerance, and Social Commitment. As noted in Appendix A, interpretation of Rosenberg's data is limited by lack of information about the program, about the personal background of participants, and about the conditions under which the PSM Inventory was administered. Nevertheless, the consistent finding of significant increases in PSM scores disconfirms the hypotheses that YCC in general has no measurable effect and that the PSM is insensitive to YCC's effects. Frankel's study, conducted as a natural experiment with randomly assigned treatment and control groups and a comparison group of youth in another kind of summer work program, further supports the notion that YCC can have measurable effects on participants. He found no comparable changes in nonparticipants whether they had worked during the summer or not.

This leaves two of the five reasons listed above. We might have selected unusually weak programs to evaluate or the testing conditions might have varied substantially. The inclusion of the 1977 Cortland YCC program in our study and our observations of the programs in operation tend to disconfirm the first. We did not get the positive results in Cortland that we would have expected from Frankel's study and from our observations of the program. The Cortland program differed in 1977 from the one Frankel studied,

but not so greatly that we would have expected to be measurably less effective. We cannot, however, rule out this possibility entirely because we have no solid evidence to the contrary.

Testing conditions definitely varied among the three studies. Frankel administered the PSM and other measures to the 1976 Cortland sample in person for the YCC participants at the pretest and by mail to the control group and to the YCC participants at the posttest. Furthermore, he mailed the posttest to both groups in the third week of November so that his posttest measured changes that lasted three months or more after the end of the program rather than end-of-program states that our posttests and Rosenberry's measured. As a participant observer in the Cortland program and as interviewer of all participants, Frankel established himself as someone who was known and liked by the YCC participants. It is possible, therefore, that they responded differently on the posttest because they knew it was for him. It is also possible that the delayed posttest gave a more accurate indication of program impact. Frankel (1978) cited studies using both immediate and delayed posttests which showed greater increases in the delayed posttests.

Rosenberry administered some pretests herself and at other sites asked program staff to administer them. All posttests were administered by program staff. In this case too, responding to the PSM Inventory for staff members with

whom they had established close relationships over the summer may have had an effect on scores. In any case, the testing conditions in both studies were different from those in ours where we were essentially outsiders at both the pre- and posttests.

Testing conditions in Syracuse were unacceptable. They have made us cautious about interpreting the Syracuse results. There was much joking, talking, and other forms of resistance to the testing procedure. We interpreted this as resulting from at least three factors. First, tight discipline was not characteristic of the Syracuse program. Staff, for reasons that are discussed above, were not able to establish firm authority and therefore could not command compliance with the evaluators' instructions. Second, we were naturally perceived as representatives of white authority who were demanding school-like performance from predominantly black youth who expressed their dissatisfaction about being made to sit still and pay attention and about being tested, especially at the end of June after school was out. Third, many of the Syracuse participants had difficulty following instructions and filling out the forms. A number of forms were simply excluded from the analysis because of glaringly inaccurate responses; e.g., marking more spaces than there were questions or marking the same answer to all questions.

On the basis of our experience in Syracuse, we concluded that the PSM Inventory should not be administered in

a group context under such conditions. We are confident that individual, one-to-one administration or perhaps even groups of four or five with one tester would have provided much more usable responses. The added costs of such a procedure are obvious.

But if the Syracuse participants were most direct and obvious about their displeasure with the testing procedures, they were not alone. Especially in Oswego, other participants also complained about the school-like treatment and some simply refused to participate. In Monroe, where participants were uniformly well-behaved and apparently compliant, one young man was heard to say to his companion while responding to the PSM items, "I'm answering this like I was a redneck." This incident illustrates both the problems of group administration of the instrument and the opportunities provided by the PSM for faking. Enough participants spoke knowledgably to us after the testing about individual items and groups of items to assure us that many respondents were far from naive about the purposes of the instrument and the meanings of items. They could have easily manipulated their results if they had wanted to. Some undoubtedly did so. Whether more wished to portray themselves as "rednecks" than as "goodie-goodies" we have no way of knowing. We believe, though, that if respondents in Frankel's and Rosenberry's studies had wished to appear more mature to please their testers they could have done so.

This may well be a serious weakness in the PSM, but it is not necessarily a weakness in the YCC. We would not wish to argue that instilling a desire to perform in what is perceived as a positive fashion in a testing situation is a trivial effect. It would be helpful, though, to know the origins of such a desire, if that, in fact, is what we have found. An intriguing speculation that has occurred to us (and notice here that we are speculating about the sources of ambiguous results) is that esprit de corps may be an important factor in YCC programs, leading participants in some to increase their PSM scores to make the program and participant group look good. We do not know enough about the programs Rosenberry sampled to be able to test this hypothesis, though we do note a tendency for residential programs to show more favorable outcomes, just as Cayuga showed the only substantial positive changes in our study. Residential programs could be expected to instill a stronger sense of group spirit than nonresidential programs because of the duration and variety of contact among participants, provided, of course, that conditions made that contact pleasurable and constructive rather than conflict-ridden and tension-producing.

The greatest change in the Cortland program from 1976 to 1977 was the initiation in 1977 of a project away from the 4-H camp. This took about one-third of the participants away from the day-to-day interaction and observation of each other's work that characterized the two previous

years' programs. Perhaps that was enough to reduce the esprit de corps of the Cortland group and thereby eliminate the gain in PSM scores, at least when strangers administered the posttest. Monroe and Oswego were both decentralized programs in the sense that separate crews worked independently of each other and had few opportunities to interact and to admire and take pride in each other's work.

This must be taken as sheer speculation, but it would be possible in future years to compare two or more programs in which similar kinds of participants worked either on goals perceived as related or on independent projects. Systematic efforts could also be made to assess the amount and kind of group spirit. If an esprit de corps effect were found it would still be necessary to decide how important that was, which would require both additional empirical evidence and some nonempirical value judgments.

4.2 -- Program Recommendations

Lacking robust findings, we are unable to make strong recommendations regarding future YCC programs. We can, however, suggest some future directions for research and state our beliefs about future programs. We begin with program recommendations.

Our analysis of the relationship of work and supervisor quality with participant attendance showed that while participants with leaders and work we rated as high quality attended work consistently and often, those participants

with leaders and work we rated as low quality showed much more varied attendance records, though most still attended work most of the time. Therefore, the three program features (work, staff, and organization) identified through our observations and on which we based our ratings seem worthy of additional attention. If we had any influence over the selection and oversight of YCC programs, we would try to assure that each program offered participants a variety of tasks and that most of those tasks required the development and use of somewhat sophisticated skills. Furthermore, we would evaluate proposed work projects according to their likelihood of providing participants with opportunities for group decision making. With regard to organization, we would be concerned about programs with widely dispersed lines of communication and authority. At a minimum, we would expect assurances that work projects would be selected for their educational value and ultimately controlled by those responsible for the educational aspect of the program.

Our concerns about staff are even greater. If we had to choose one element that seemed most likely to make a difference in YCC programs, it would be the quality of the crew leaders who work directly with participants. We cannot describe the ideal staff person; indeed, there are probably several different ideals. Leaders with widely differing backgrounds, dispositions, and personal styles can be effective. Their effectiveness might vary depending

on conditions such as the kinds of young people they work with and the type of work being done.

Three factors seem crucial to the quality of staff; selection, preparation, and support. It seemed to us that when staff had difficulties, they could be traced in part to inadequacies in one or more of these factors. Selection is the most obvious and the area where all programs made some investment of time and energy. We have already stated that we have no detailed set of selection criteria to offer. The most obvious criteria seem the most important. Staff members should have some technical expertise, about natural science or the work being performed or both, and they should be competent youth leaders, capable of eliciting respect, of responding sensitively to youth, and of teaching informally. The role of crew leader combines the responsibilities of a foreman, coach, teacher, and counselor and staff candidates should be able to demonstrate their capacities in all these areas.

Once staff members have been selected, they must be prepared for their specific tasks. In most programs, this need is addressed in an orientation period of a few days to a week. Our perception was that some orientation was absolutely necessary but that the most effective preparation did not end with orientation. The programs that seemed best-organized held staff meetings through the summer, and their orientation programs were spent not only in relatively passive activities but in making real decisions and

accomplishing real tasks in preparation for the arrival of participants. Staff members, that is to say, were made partners of the program planning and decision making. We would recommend that all programs incorporate paid staff time for both planning and staff development, not only before the participants arrive but throughout the summer. Important topics for staff preparation defined in this way are the environmental education program and rainy day activities. We observed some excellent educational activities, but in many cases environmental education was used as a time filler and not well planned. Full-day special programs seldom seemed as effective or as efficient as well-planned lessons that were incorporated into the work project. During rainy days, many crew leaders seemed to have only two options, work in the rain or let them loaf. Preparation, including group planning, could reduce both of these weaknesses.

Staff development and staff planning time that was both paid and carefully implemented would go far toward providing support to crew leaders. They need help in understanding what their responsibilities are and how to fulfill them. They need information about what other crews are doing and about logistical arrangements. They need to have their skills and authority reinforced by program directors. Although unusually talented individuals seem able to thrive as crew leaders under almost any conditions, inexperienced and less talented crew leaders will perform

very well only if given appropriate support.

Another program recommendation we have to offer is that explicit attention be paid in YCC programs to sexism. By bringing young men and young women together to do work that is traditionally considered men's work, YCC has an excellent opportunity to help young people think about and talk about sex roles and to experience a situation in which sex does not limit the roles one can play. This is particularly true when crew leaders and program directors are women. But the opportunity is lost if there are too few women participants or if work becomes sex-typed either by default or by choice. Crew leaders need to be sensitive to this and program directors should take pains to see that leaders are willing to assign work and make performance demands equally. Because young women seldom have the experience with tools and physical labor that some young men have, this means that crew leaders must offer instruction and show patience while the young women gain skill and confidence at tasks to which they are unaccustomed.

This recommendation comes mostly from our observations and could be illuminated by several anecdotes, but space does not allow extensive description. Suffice it to say that we observed a tendency in some crews toward female participants doing lighter and less technical work. This was especially true if only one or two women were in a predominantly male crew with a male leader. In those situations where either the young women's experience or initia-

tive or the crew leader's predisposition led to equal sharing of work, both male and female participants seemed to develop a healthy respect for what women can do.

The finding of greater gains among young women participants (see section 3.6) offers some support for a recommendation that efforts be made to assure that more nearly equal numbers of males and females participate in all YCC programs. If, in fact, females gain more than males, then the potential impact of YCC is maximized by including more females. A simple way to accomplish this goal would be to allow nonresidential programs to stratify their random samples of applicants by sex, as residential programs already do.

Our final recommendation is based on the finding that residential programs appear to have a stronger impact on participants in the areas we investigated than nonresidential programs. If these kinds of outcomes are desired, then residential programs seem to be the most likely to produce them. The senior author makes this recommendation with some reluctance because he finds much to recommend the pattern of YCC programs in New York State, where state grant programs are sponsored by various local agencies. This results in a preponderance of nonresidential programs since the recruiting areas are small and the staffing, housing, and related needs are less. It also means that each community where a program is located has a strong interest in the program. Although we do not have access to

the figures, it seems quite likely that the cost of YCC per participant is substantially lower in nonresidential programs, allowing a wider dispersion of its benefits. There are, therefore, good reasons for continuing to support nonresidential programs, but as a general rule they are not likely to be as effective as residential programs in producing the kinds of outcomes we were looking for. This is understandable given the intensity of socialization in a residential setting.

4.3 -- Research Recommendations

The need for research results to demonstrate the value of YCC and improve programs continues. Random assignment of applicants to programs, something that attracted us originally to the possibility of studying YCC, remains an unusual opportunity for research. In order to make better use of the chance to conduct a natural experiment, future researchers will need greater advance planning time than we had. One of our greatest disappointments was the failure to establish a true control group. Doing this in the future will take greater cooperation with those making the selection of applicants and more resources devoted to securing cooperation with nonselected applicants. Frankel demonstrated that an acceptable response rate can be obtained with persistence. We were trying to do too many things at the same time to do the necessary follow-up producing.

In addition to making the control group truly random, future researchers should administer tests under comparable conditions in both the control and YCC participant groups. This is another difficult challenge and likely to demand much more expenditure of time and effort, but it is unavoidable if the uncertainties of this study are to be avoided. Perhaps the best approach would be to select a subsample of applicants from which both the treatment and control groups would later be selected and then to test them before their selection. This might even be done in schools, if the recruiting area were small enough, but it would require considerably more time than we had to give and it would require early selection. Posttesting would be equally expensive. The chief problem is that nonselected applicants have little incentive to travel to a central location for testing. Offering money does not appear to be sufficient.

Future studies should not be designed with the expectation that all YCC participants would be affected similarly. Differences in family background, age, sex, and race, among others, may well have substantial influence on how the YCC experience is received. One reason why few changes were detected by our study may have been that changes within subsamples were washed out or cancelled by aggregating them. Therefore, future studies should be sophisticated enough in design to test whether different sorts of participants are being affected differently. This

point and others regarding the design and instrumentation of evaluation studies of experiential learning programs are set out in more detail by Hamilton (1978).

Future studies should also attempt, as ours did, to incorporate process data so that program outcomes can be associated with what happens in programs. This will obviate the kind of frustration we feel about Rosenberry's data, which show measurable impact but offer no basis for conclusions about the relative merits of various kinds of programs except residential versus nonresidential.

The need for process data entails more systematic observation, which is one of the recommendations we have to make regarding measures. Our informal observations provided some insights into what happened during programs, but were insufficient for drawing firm conclusions. Ethnographic methods are gaining increasing use in classroom research and might be useful as well in YCC program studies. (See Doyle, 1978, and Mehan, 1978.)

The Psychosocial Maturity Inventory, though the best paper-and-pencil measure we have found for the purposes we had, is not totally satisfactory as a measure. We have already suggested that it might have been more reliably administered on a one-to-one or small group basis. But we also found reason to question its validity, at least as an indicator of behavior. (The question of the relation of attitudes to behavior is much too complex for discussion here, but we would hope that scores on measures such as the

PSM Inventory would be related to behavior.) For example, as noted in section 3.3, we found an unexpected and puzzling correlation between pretest scores on Social Commitment and participants' attendance. It is puzzling because there was no correlation between attendance and Work Orientation, which included questions about sticking to a job in contrast to the Social Commitment questions about altruistic behavior. In this case, the PSM Inventory seemed to be tapping some predispositions that were reflected in behavior, but the questions and the behavior did not match, suggesting that the PSM may not measure exactly what it is supposed to measure. Nonetheless, the efficiency of paper-and-pencil measures commends continued efforts to find and develop valid and reliable ones and continued use of the PSM in the absence of better ones.

To be of greatest value, future studies should attempt to assess the impact of the YCC in ways that are even more difficult than those conventionally employed. Specifically, they should attempt to determine whether whatever impact the YCC has is carried over into other settings, especially the home and the school. And they should include follow-up assessments to see whether and under what conditions the impact persists for a year or more. These are high aspirations both for a program and for research. They are, however, the most convincing kind of evidence that a program has real and important effects on participants.

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Data on Federally-run Programs

We are fortunate to have for our inspection data from nine YCC camps collected in the summer of 1977 by Peg Rosenberry of the U.S. Department of the Interior. The camps were all federally run (rather than state run as were those for which data are presented in the body of this report), and were located in several states throughout the country. The data consist of pretest and posttest scores for the nine PSM subscales plus personal background and demographic information obtained from the participants' application forms. Pretests and posttests were administered by the staff of each camp during work hours near the beginning and ending dates for the camps.

Description of Camps and Participants

Table A.1 contains information about the characteristics of participants in each of the federal YCC projects. The average age of 16.1 is similar to the average age of the participants in the state camps. (See Table 3.1.) However, there is a big difference in the sex balance, the federal camps showing a nearly equal proportion of males and females, while the state camps heavily favored enrollment of males. Comparison of the data on family income, race, and town size is problematic because of missing data for the state camps. (See Table 3.2.) However, it seems fair to say that the state camps had a higher proportion of

TABLE A.1

Description of Participants in
Federally Sponsored YCC Programs

		Nonresidential Programs						Residential Programs				
		Coleman	Utah	Chico	Herrick Is.	Gulf Is. I	Chick-Chatt	Combined Nonresidential	Gulf Is. II	Palisades	Yakima	Combined Residential
# of participants		23	9	21	44	17	21	135	20	29	23	72
Age (average in years)		16.1	15.9	16.2	16.1	16.2	16.0	16.1	16.1	16.1	16.2	16.1
Sex (% of males)		43%	44%	52%	43%	58%	52%	48%	50%	52%	48%	50%
Family Income	Below \$5,000	8.7%	22.2%	0.0%	0.0%	0.0%	5.0%	3.7%	15.0%	3.4%	0.0%	5.6%
	\$5,000-\$10,000	47.8%	0.0%	23.8%	6.8%	17.6%	10.0%	17.9%	15.0%	6.9%	18.2%	12.7%
	\$10,000-\$15,000	17.4%	33.3%	33.3%	54.5%	41.2%	45.0%	40.3%	50.0%	55.2%	43.5%	50.7%
	Over \$15,000	26.1%	44.4%	42.9%	38.6%	41.2%	40.0%	38.1%	20.0%	34.5%	34.6%	31.0%
Race	White	95.7%	88.9%	95.2%	84.1%	76.5%	100.0%	89.6%	85.0%	96.6%	95.5%	93.0%
	Black	0.0%	11.1%	0.0%	11.4%	23.5%	0.0%	7.5%	15.0%	0.0%	4.5%	5.6%
	Other	4.3%	0.0%	4.8%	4.6%	0.0%	0.0%	3.0%	0.0%	3.4%	0.0%	1.4%
Town Size ^a	Under 2,500	26.1%	44.4%	0.0%	9.1%	0.0%	15.0%	12.7%	0.0%	24.1%	13.6%	14.1%
	2,500-50,000	73.9%	55.6%	100.0%	90.9%	0.0%	80.0%	73.9%	0.0%	65.5%	40.9%	39.4%
	Over 50,000	0.0%	0.0%	0.0%	0.0%	100.0%	5.0%	13.4%	100.0%	10.3%	45.5%	46.5%

^a Refers to the population of the participant's home community.

low-income participants than the federal camps. All but a few of the federal camp participants were white except at Merritt Islands and the two Gulf Islands camps where there were from about 15% to 25% nonwhites, mostly blacks. The residential camps drew more participants from large towns than did nonresidential camps.

The federal camps were not systematically observed, but Rosenberry visited most of the camps during the summer. The following brief descriptions are based on information she provided for us.

Coleman National Fish Hatchery, Anderson, California, 23 enrollees, nonresidential, Fish and Wildlife Service. Environmental awareness program judged to be lacking in direction. A confrontation between staff and enrollees regarding drug use on a spike camp was seen as breaking down trust.

Ukiah, Ukiah, California, 9 enrollees, nonresidential, Bureau of Land Management. Judged to be a well-run camp, but the PSM Inventory was presented to enrollees as "just another silly test the government makes us give," and participant attitudes were, therefore, negative toward it.

Chico, Redding, California, 21 enrollees, nonresidential, Bureau of Land Management. A year-round camp, operating five 8-week sessions each year. One of the better camps, with both easy rapport between staff and enrollees and good discipline. PSM Inventory was presented by camp director as important.

✓ Merrit Islands National Wildlife Reserve, Titusville, Florida, 44 enrollees, nonresidential, Fish and Wildlife Service. No direct observations.

Gulf Islands, Gulf Breeze, Florida, 20 enrollees residential, 17 enrollees nonresidential, National Park Service. Smoothly administered camps with a strong authority figure in charge. PSM Inventory apparently not well received by administrator. No direct observations.

Chickamauga-Chattanooga (Chick-Chatt), Chattanooga, Tennessee, 50 enrollees, nonresidential, National Park Service. One of the best Park Service YCC camps, with an experienced and competent staff.

Palisades, Palisades, Idaho, 20 enrollees, residential, Bureau of Reclamation. Staff and enrollees seemed to have overcome numerous logistical and administrative problems and maintained high morale in spite of them.

Yakima, Ellensburg, Washington, 23 enrollees, residential, Bureau of Reclamation. A very successful camp. Young but experienced staff had high esprit de corps and effectively handled problems around enrollee discontent with safety restrictions on their activities.

Does the YCC have a measurable impact on its participants?

When all of the YCC projects are considered as one combined group, five of the nine PSM subscales showed significant increases from pretest to posttest as measured by

two-tailed t-tests: Work Orientation [$t=2.09$, $df=206$, $p=.038$]; Trust [$t=2.33$, $df=206$, $p=.021$]; Communication [$t=3.29$, $df=206$, $p=.001$]; Tolerance [$t=2.01$, $df=206$, $p=.045$]; and Social Commitment [$t=2.42$, $df=206$, $p=.016$]. None of the other PSM subscales showed significant change.

In section 3.4 we reported results of the same test on the state YCC camps. There was a significant positive change on only the Trust Subscale, and the Tolerance Subscale showed a significant negative change rather than a positive change as with the present data. We are not able to offer a conclusive explanation of the difference between these two data sets, but instead offer the following suggestions.

First, the data from the state camps had only 114 pretest-posttest results as compared to the 207 results from the federal camps. This gives a slight advantage to the federal camps, since a given change can be more accurately called "significant" if it is based on many cases rather than a few. However, close inspection of the data indicates that this is not an adequate explanation of the discrepancy in the results of the two data sets. Change scores in the state camps are generally smaller than those in the federal camps. This would also not explain the significant negative change in the state camps on the Tolerance Subscale.

Second, the testing conditions were different between the state and federally run programs. Both pretests and

posttests were administered by the research staff for the state camps, but were administered by camp staff for the federal camps. This may have created a more positive response set in the federal camp participants than in their state camp counterparts, especially on the posttest when the participants were familiar with the camp staff testers but less familiar with the research staff testers. The net effect may thus be higher gains for those in federal camps, gains which are only artifacts of the testing conditions.

Third, interpretation of the results is complicated by the lack of appropriate nonparticipant control group data with which to compare the YCC data. The stated significant increases in subscale scores may have been due to normal maturation or to forces other than the YCC experience. The use of control group data for the state camps changed the pattern of significant results (see section 3.4), and it seems likely that the same effect might occur if control group data were compared to the data from the federal YCC camps. Given the present data we are simply unable to say whether the significant subscale increases result from the YCC camps or other factors.

It seems appropriate here to repeat our earlier speculation that sweeping generalizations about the effects of the YCC on its participants, particularly on psychosocial maturity as measured by the PSM Inventory, are inappropriate. Results from the federal and state programs were

strikingly different, and despite the difficulties in interpretation, the differences may indeed be due to differences in program quality. In section 3.3 we reported observation data that suggested poor program quality in Syracuse and in some crews in Oswego County. However, very little information is available about program quality in the federally administered camps. Virtually no observation data is available, nor were we able to obtain data from End-of-Camp Questionnaires which were administered to federal camp participants. Thus, although the differences in results may have resulted in part from differences in program quality between federal and state camps, we have little data with which to support such an assertion.

Do some YCC programs have more impact than others?

An analysis of covariance was performed on each of the PSM subscale posttest scores with the pretest subscale scores as the covariate and the nine YCC camps as the independent variable. These tests indicated significant differences among YCC programs ($p < .05$) for all PSM subscales. Table A.2 shows the relative standing of each YCC program on each PSM subscale. Numbers in parentheses are average subscale scores for each group on the posttest after the effect of the pretest has been partialled out of both the posttest score and the group variable. These will be referred to as adjusted posttest scores. Lines under these scores are the result of a Newman-Keuls test for multiple

TABLE A.2

Comparison of Mean Residual Gains on the
Psychosocial Maturity Inventory among
Federally Sponsored WCC Programs

Self-Reliance Subscale [$F(8,197)=4.162, p=.001$]									
Gulf Is. I (2.91)	Gulf Is. II (3.04)	Herritt Is. (3.13)	Chick-Chatt (3.20)	Ukiah (3.26)	Coleman (3.29)	Yakima (3.33)	Chico (3.39)	Palisaden (3.40)	
Identity Subscale [$F(8,197)=3.324, p=.001$]									
Gulf Is. I (2.75)	Gulf Is. II (3.00)	Yakima (3.03)	Herritt Is. (3.03)	Chick-Chatt (3.13)	Coleman (3.17)	Ukiah (3.19)	Palisaden (3.24)	Chico (3.34)	
Work Orientation Subscale [$F(8,197)=2.865, p=.005$]									
Ukiah (2.79)	Gulf Is. II (2.91)	Herritt Is. (2.97)	Gulf Is. I (2.98)	Chick-Chatt (3.00)	Palisaden (3.05)	Yakima (3.13)	Coleman (3.14)	Chico (3.29)	
Communication Subscale [$F(8,197)=2.201, p=.029$]									
Gulf Is. I (2.60)	Ukiah (2.62)	Herritt Is. (2.70)	Gulf Is. II (2.72)	Coleman (2.75)	Yakima (2.87)	Chick-Chatt (2.89)	Palisaden (2.91)	Chico (2.97)	
Trust Subscale [$F(8,197)=2.471, p=.014$]									
Coleman (2.53)	Herritt Is. (2.63)	Yakima (2.66)	Palisaden (2.70)	Gulf Is. II (2.71)	Gulf Is. I (2.72)	Chick-Chatt (2.86)	Ukiah (2.89)	Chico (2.91)	
Roles Subscale [$F(8,197)=5.448, p=.001$]									
Gulf Is. I (2.94)	Gulf Is. II (3.22)	Herritt Is. (3.22)	Chick-Chatt (3.34)	Coleman (3.36)	Palisaden (3.37)	Yakima (3.37)	Chico (3.52)	Ukiah (3.60)	
Social Commitment Subscale [$F(1,197)=2.557, p=.011$]									
Gulf Is. II (3.03)	Gulf Is. I (3.07)	Herritt Is. (3.21)	Yakima (3.23)	Chick-Chatt (3.25)	Chico (3.27)	Ukiah (3.30)	Coleman (3.31)	Palisaden (3.41)	
Change Subscale [$F(8,197)=2.999, p=.003$]									
Gulf Is. I (2.85)	Chick-Chatt (3.01)	Gulf Is. II (3.05)	Ukiah (3.08)	Herritt Is. (3.12)	Coleman (3.17)	Chico (3.17)	Palisaden (3.24)	Yakima (3.24)	
Tolerance Subscale [$F(8,197)=3.710, p=.001$]									
Gulf Is. I (2.90)	Gulf Is. II (3.20)	Herritt Is. (3.21)	Ukiah (3.22)	Chico (3.24)	Chick-Chatt (3.24)	Coleman (3.26)	Yakima (3.32)	Palisaden (3.43)	

Note: Lines are drawn under subsets of groups for which no pair has significantly different means. The Newman-Keuls method for multiple comparisons was used with $p=.05$ for each set of comparisons. Numbers in parentheses indicate the relative standing of each group on adjusted posttest.

comparisons. (Refer to section 3.3 for a discussion of this statistical test.)

Table A.2 shows that the two Gulf Islands camps tended to have lower adjusted posttest means on every PSM subscale except the Trust Subscale. The Merritt Islands camp also tended to score low on the adjusted posttests. As discussed earlier, these camps were never visited, so there is little we can say about what may have caused these relatively low scores. Palisades and Chico tended to score relatively high on the adjusted posttest means. The notes presented earlier suggest that rapport between staff and participants was particularly good at these camps. In general, however, although we have evidence that some YCC programs have more impact than others, we are not in a position to give explanations for why this is the case.

Other Analyses

An analysis of covariance was performed on each of the PSM subscales with the posttest subscale score as the dependent variable and the pretest subscale score as the covariate. The independent variables were the participant's sex, whether or not the participant was at a residential camp, and the participant's age coded high (ages 17 or 18) or low (ages 15 or 16). There was a significant main effect for sex on the Communication Subscale [$F(1,198)=5.187$, $p=.023$], the Roles Subscale [$F(1,198)=5.951$, $p=.015$], and the tolerance Subscale

[$F(1,198)=13.976$, $p<.001$]. On these three subscales, females scored significantly higher than males on their adjusted posttest scores. There were no main effects for age. There were main effects for residential versus nonresidential camps on the Tolerance Subscale [$F(1,198)=9.190$, $p=.003$], and the Change Subscale [$F(1,198)=4.458$, $p=.034$]. the residential camp participants scoring higher than the nonresidential camp participants in both cases.

In addition to these main effects, there were three-way interactions on two of the subscales, the Identity Subscale [$F(1,198)=10.023$, $p=.002$], and the Tolerance Subscale [$F(1,198)=3.932$, $p=.046$]. Three-way interactions are usually difficult to interpret, and these are no exceptions. On the Tolerance Subscale, it seems that the big difference is that younger females from residential camps showed more gain than older males from nonresidential camps. On the Identity Subscale, the older residential males have the most gain, especially when compared to nonresidential males and older residential females. Why the interactions turned out this particular way we do not know, nor why similar interactions did not show up on the other subscales.

Of the 207 participants, only 19 (9.2%) were nonwhite, and of the 19 nonwhites, 14 were black. (See Table A.1.) The other nonwhites were two American Indians and three Spanish-Americans. Using the same type of analysis of covariance as described above except with race (coded white or nonwhite) as the only independent variable, it was found

that nonwhites showed lower adjusted posttest scores than whites on all nine PSM subscales. The scores were significantly lower on five of the subscales: Self-Reliance [$F(1,202)=5.424$, $p=.020$]; Communication [$F(1,202)=4.139$, $p=.041$]; Trust [$F(1,202)=5.408$, $p=.020$]; Social Commitment [$F(1,202)=10.091$, $p=.002$]; and Tolerance [$F(1,202)=8.992$, $p=.003$]. No significance tests were performed for the differences among the three nonwhite groups, but it is clear from a breakdown by race of the nine subscales that average black subscale gains were consistently lower than those for whites, while the American Indian and Spanish-American averages varied considerably from one subscale to the next.

Table A.1 shows that almost all of the blacks were at Merritt Islands or at the two Gulf Island camps. We have already discussed the fact that these camps had among the lowest average adjusted posttest scores on almost every subscale. The question arises whether the low average black scores are simply a function of the poor quality of these three camps, or whether there is a race effect beyond the main effect for camps. To help solve this problem of interpretation, race analyses were performed on only these three camps. Again, average black adjusted posttest scores were lower than average white adjusted posttest scores on every subscale, but the differences were less than the white-nonwhite differences in the previous analysis. Blacks scored significantly lower than whites on adjusted posttest scores only on the Social Commitment Subscale

[$F(1,76)=6.522$, $p=.012$]. Thus, the generally lower scores of Gulf Islands and Merritt Islands acted to accentuate the white-nonwhite difference, and the differences between black and white adjusted posttest means are not as great as the overall white-nonwhite analysis would lead one to believe. However, the non-significant trends on some of the subscales are suggestive. It is also true that the generally lower black adjusted posttest means at Merritt Islands and the two Gulf Islands camps, although nonsignificant, contributed to these camps' below average gains.

Another analysis of covariance was performed using family income and the size of the participant's home community as the independent variables. (Both independent variables were coded as shown in Table A.1.) Only nine participants (4.3%) were in the "below \$5,000" category for family income, and only about one-fifth of the sample had a family income of less than \$10,000. The only significant effect for income was on the Tolerance Subscale [$F(3,192)=5.619$, $p<.001$]. Here the "below \$5,000" category showed the highest adjusted posttest scores on almost every subscale. Unfortunately, the small number of participants in this category makes significant results difficult to achieve if this is, in fact, a true effect.

Table A.1 shows the distribution of participants according to the population of their home community. Over 72% of the "over 50,000" category went to one of the Gulf Islands camps, and everyone at the Gulf Islands camps was

in this category. On every subscale the "over 50,000" category showed the lowest adjusted posttest scores. This effect was significant on five subscales: Self-Reliance [$F(2,192)=5.807$, $p=.004$]; Identity [$F(2,192)=7.885$, $p<.001$]; Roles [$F(2,192)=7.825$, $p<.001$]; Social Commitment [$F(2,192)=3.957$, $p=.020$]; and Change [$F(2,192)=3.278$, $p=.039$]. On all the subscales except the Change Subscale the "2,500 - 50,000" category showed the lowest average adjusted posttest score while the "under 2,500" category ranked second. Because the results of the analysis on the town size variable may have been greatly affected by the abnormally low scores in the two Gulf Islands camps, we repeated the analysis using only Palisades and Yakima where there was a fair distribution of participants in each of the three categories. Both of these camps were rated as worthwhile by the informal observations discussed earlier, so camp quality is also held somewhat constant. This analysis showed no significant effects for town size, nor were there any consistent trends. Thus, it appears that the significant effects found in the previous analysis were caused primarily by the low Gulf Islands scores rather than any main effect for the size of the participant's home community.

The analyses presented above on the demographic information are not in general agreement with similar analyses performed on the data from the state camps. In the state camps there was no evidence of any main effects for race.

There was no significant effect for family income, and the nonsignificant trends were different from those in the federal camps. There was a different pattern of significant results for the town size variable. There was however, a similar trend for females to score higher than males. Another similarity was a general lack of a main effect for age of the participant.

Personal Background Questionnaire

Name _____

Address _____

Telephone _____

1. How old were you on your last birthday?

- (1) 15 years (2) 16 years (3) 17 years (4) 18 years

2. What grade were you in during the past year?

- | | |
|----------------|--|
| (1) 8th grade | (6) I dropped out of school and I was in the ____ grade |
| (2) 9th grade | when I did so |
| (3) 10th grade | (7) I graduated from high school and was working or looking |
| (4) 11th grade | for work |
| (5) 12th grade | (8) I graduated from high school and am now in the ____ year |
| | of college |

3. What is your sex?

- (1) Female (2) Male

4. Will you be attending high school this fall?

- (1) Yes (2) No

If "Yes", what is the name of the school you'll be attending?

(City or town)

If "No", where can you be reached this fall?

5. In my family I live with the following adults:

- | | |
|---------------------------------|------------------|
| (1) My mother and father | (4) Mother only |
| (2) My mother and another adult | (5) Father only |
| (3) My father and another adult | (6) Other adults |

6. Have you had a part-time job at any time during the past 3 months?

- (1) Yes (2) No

7. Have you ever had a paying job before this summer?

- (1) Yes (2) No

8. If you answered "Yes" to question seven, what kind of job or jobs have you had?
(Circle any number that applies)

- | |
|---|
| (1) An occasional job such as mowing lawns, or babysitting |
| (2) A regular job such as delivering newspapers, working in a restaurant, being a store clerk, and so on. |

9. During the past six months about how many school activities such as student council, school newspaper, debate club, etc. have you participated in?

- (1) None (2) 1 (3) 2 (4) 3 or more

10. During the past six months about how many community activities such as 4-H, Scouting, service groups, religious groups, etc. have you participated in?

- (1) None (2) 1 (3) 2 (4) 3 or more

11. How far do you actually expect to go in school?

- (1) Don't expect to graduate from high school
(2) Graduate from high school
(3) Technical or business training after high school
(4) Graduate from a 4 year college
(5) Professional or graduate school after college
(6) Don't know

Decisions and Rules

1. How are most decisions made between you and your mother? (Check one)
 - A. ☐ My mother just tells me what to do
 - B. ☐ She listens to me, but she makes the final decision herself
 - C. ☐ We make the decision jointly
 - D. ☐ I listen to her, but I make the final decision
 - E. ☐ I just decide what I will do myself
2. When you don't know why your mother makes a particular decision or has certain rules for you to follow, will she explain the reason? (Check one)
 - A. ☐ Never
 - B. ☐ Once in a while
 - C. ☐ Sometimes
 - D. ☐ Usually
 - E. ☐ Yes, always
3. How are most decisions made between you and your father? (Check one)
 - A. ☐ My father just tells me what to do
 - B. ☐ He listens to me, but he makes the final decision himself
 - C. ☐ We make the decision jointly
 - D. ☐ I listen to him, but I make the final decision
 - E. ☐ I just decide what I will do myself
4. When you don't know why your father makes a particular decision or has certain rules for you to follow, will he explain the reason? (Check one)
 - A. ☐ Never
 - B. ☐ Once in a while
 - C. ☐ Sometimes
 - D. ☐ Usually
 - E. ☐ Yes, always
5. Some parents have rules for their teenage children, while others don't.
(Check each item for which your parents have definite rules.)
 - ☐ Time for being in at night on weekends
 - ☐ Amount of dating
 - ☐ Against going steady
 - ☐ Time spent watching T.V.
 - ☐ Time spent on homework
 - ☐ Against going around with certain girls
 - ☐ Against going around with certain boys
 - ☐ Eating dinner with the family
 - ☐ No rules for any of the above items

A = AGREE STRONGLY
B = AGREE SLIGHTLY
C = DISAGREE SLIGHTLY
D = DISAGREE STRONGLY

PSYCHOSOCIAL MATURITY INVENTORY

1. When a job turns out to be much harder than I was told it would be, I don't feel I have to do it perfectly.
- 2.. I find it easy to explain what I think or believe.
3. If a friend whose ideas about God are very different from mine gave me a religious magazine to read, I wouldn't read it.
4. It's not very practical to try to decide what kind of job you want because that depends so much on other people.
5. A man shouldn't cook dinner for his wife and children unless the wife is sick.
6. If you see a coat you think you might like to buy, the sales person should agree to save it for as long as it takes you to decide.
7. I can't really say what my interests are.
8. I would rather use my free time to enjoy myself than to help raise money for a neighborhood project.
9. I find it hard to stick to anything that takes a long time to do.
10. If people are picked in a fair way to be on a trial jury, they are sure to reach a fair decision.
11. It would be hard to write a letter explaining why I should be hired for a job.
12. You should avoid spending too much time with people who are not approved of, even though you think they are really all right.
13. In a group I prefer to let other people make the decisions.
14. We should limit the number of women who can train for jobs usually held by men, such as dentist or engineer.
15. If I find something on the sidewalk, it's mine because I found it.
16. I never seem to feel the same about myself from one week to the next.
17. Why work for something that others will enjoy if you won't be alive to enjoy it too?
18. I hate to admit it, but I give up on my work when things go wrong.
19. People can be trusted no matter what they have to win or lose.
20. My school doesn't teach the more important things in life.

CHECK TO BE SURE THE LAST OVAL YOU FILLED IN WAS FOR QUESTION NUMBER 19.

APPENDIX D

A = AGREE STRONGLY
B = AGREE SLIGHTLY
C = DISAGREE SLIGHTLY
D = DISAGREE STRONGLY

21. Even if I know how to do something, I find it hard to teach someone else.
22. I would not mind being friends with a person whose father or mother was in trouble with the law.
23. You can't be expected to make a success of yourself if you had a bad childhood.
24. Women who decide not to be mothers are not doing what they should.
25. If my friend lends me money, he should wait until I pay it back and not ask for it.
26. Most people are better liked than I am..
27. I would only give a large sum of money to medical research on cancer if I knew they would find a cure in my life-time.
28. I seldom get behind in my work.
29. If a man in government isn't honest, he won't get elected more than once.
30. It is hard to talk to someone you don't know.
31. I don't think I could be close friends with a crippled person.
32. Luck decides most things that happen to me.
33. Women should not be elected to top government positions.
34. If a salesman is very nice to you, you should try to buy something from him.
35. My life is pretty empty.
36. There is no way to decide ahead of time who you can trust.
37. If I felt strongly about something, like race relations or better medical care for the poor, I would only work for it if there was a chance things could be changed quickly.
38. I tend to go from one thing to another before finishing any one of them.
39. You can be sure people will be honest with you if you are honest with them.
40. In a discussion, I often find it hard to understand what people are trying to say.
41. Hippies should not move into neighborhoods where there are mostly older people and young children.
42. My school teaches me the things I want to learn.

CHECK TO BE SURE THE LAST OVAL YOU FILLED IN WAS FOR QUESTION NUMBER 40.

A = AGREE STRONGLY
B = AGREE SLIGHTLY
C = DISAGREE SLIGHTLY
D = DISAGREE STRONGLY

43. The main reason I'm not more successful is that I have bad luck.
44. Schools should not let new methods of teaching, like TV and tapes, take up too much time in school.
45. If you're a guest in somebody's home and make a phone call that only costs about a dollar, you don't have to offer to pay for it.
46. I can't seem to keep people as friends for very long.
47. It's not really my problem if my neighbors are in trouble and need help.
48. I often don't finish work I start.
49. I do not mix well with other people.
50. It would bother me to work for a person whose skin color is different from mine.
51. Someone often has to tell me what to do.
52. I would like to talk to other students all over the world by way of satellite.
53. If you buy a sweater with a tag saying, "cannot be returned", and it turns out to be too small, you should insist that the store take it back.
54. I'm acting like something I'm not a lot of the time.
55. Never depend on anyone if you can help it.
56. Time you spend helping others get what they want would be better spent trying to get what you want.
57. I often leave my homework unfinished if there are a lot of good TV shows on that evening.
58. Nobody really wants to cheat another person out of something.
59. I often forget to listen to what others are saying.
60. I would not make friends with a person who had very different manners from mine.
61. When things go well for me, it is usually not because of anything I myself actually did.
62. Men should be able to train themselves for jobs usually held by women, such as elementary school teacher, nurse, and telephone operator.
63. My school activities don't help me in anything that I do outside of school.

CHECK TO BE SURE THE LAST OVAL YOU FILLED IN WAS FOR QUESTION NUMBER 60.

A= AGREE STRONGLY
B= AGREE SLIGHTLY
C= DISAGREE SLIGHTLY
D= DISAGREE STRONGLY

64. It's all right that a policeman takes a little better care of those stores where the owner gives him a tip once in a while.
65. I never know what I'm going to do next.
66. It is much more satisfying to work for your own good than to work for the good of a group you belong to.
67. I believe in working only as hard as I have to.
68. If a person is on trial in court, the decision will be fair no matter what kind of family he comes from.
69. It is hard to speak your thoughts clearly.
70. I would rather not live in a neighborhood where there are people of different races or skin colors.
71. I feel very uncomfortable if I disagree with what my friends think.
72. Children cannot be happy staying in day care centers while their mothers are at work.
73. If you're in a hurry in a store, others should be willing to let you get ahead of them.
74. I change the way I feel and act so often that I sometimes wonder who the "real" me is.
75. There are more good people than bad people.
76. I would not like it if they used some of my tax money to keep up a park that I never use.
77. It's more important for a job to pay well than for a job to be very interesting.
78. If you can trust a person in one way, you know you can trust him in all ways.
79. It is not hard to give a talk in front of other people.
80. I would not mind working closely on a job with a person whose skin color is different from mine.
81. It is best to agree with others, rather than say what you really think, if it will keep the peace.
82. I wouldn't like it if a lot of girls my age become lawyers, engineers and business managers.
83. Most school work will be useful to me when I get out of school.

CHECK TO BE SURE THE LAST OVAL YOU FILLED IN WAS FOR QUESTION NUMBER 79.

A = AGREE STRONGLY
B = AGREE SLIGHTLY
C = DISAGREE SLIGHTLY
D = DISAGREE STRONGLY

84. Classes in my school do not apply to the world.
85. People who work for the city should not have to pay traffic tickets because they already do so much for the city.
86. Nobody knows what I'm really like.
87. If there is only one copy of a book everyone wants to read, the person who gets it first should be able to keep it as long as he wishes.
88. Very often I forget work I am supposed to do.
89. I am not good at describing things in writing.
90. I wouldn't like to spend the weekend in the home of a friend whose parents don't speak English.
91. I don't know whether I like a new outfit until I find out what my friends think.
92. If we limit the amount of money people can earn, we take away some of their freedom.
93. Your friends should be willing to lend you anything you want.
94. I am not really accepted and liked.
95. If a sign in a park says "Do not pick the flowers - They are here for all to enjoy," you can pick a few if you have a good personal reason.
96. If I had a choice, I would prefer a blood transfusion from a person of the same skin color as mine.
97. If we don't encourage women to work, we are seriously reducing what the country could accomplish.
98. A person is responsible only for the happiness of his family, relatives, and close friends.
99. I don't think I'm learning a lot of things in school that will help me earn a living when I get older.

CHECK TO BE SURE THE LAST OVAL YOU FILLED IN WAS FOR QUESTION NUMBER 99.

FORM D, Grade 11

Subscales

Work

When a job turns out to be much harder than I was told it would be, I don't feel I have to do it perfectly.

I find it hard to stick to anything that takes a long time to do.

I hate to admit it, but I give up on my work when things go wrong.

I seldom get behind in my work.

I tend to go from one thing to another before finishing any one of them.

I often don't finish work I start.

I often leave my homework unfinished if there are a lot of good TV shows on that evening.

I believe in working only as hard as I have to.

It's more important for a job to pay well than for a job to be very interesting.

Very often I forget work I am supposed to do.

Self-Reliance

It's not very practical to try to decide what kind of job you want because that depends so much on other people.

In a group, I prefer to let other people make the decisions.

You can't be expected to make a success of yourself if you had a bad childhood.

Luck decides most things that happen to me.

The main reason I'm not more successful is that I have bad luck.

Someone often has to tell me what to do.

When things go well for me, it is usually not because of anything I myself actually did.

I feel very uncomfortable if I disagree with what my friends think.

It is best to agree with other, rather than say what you really think, if it will keep the peace.

I don't know whether I like a new outfit until I find out what my friends think.

Communication

I find it easy to explain what I think or believe.

It would be hard to write a letter explaining why I should be hired for a job.

Even if I know how to do something, I find it hard to teach someone else.

It is hard to talk to someone you don't know.

In a discussion, I often find it hard to understand what people are trying to say.

I do not mix well with other people.

I often forget to listen to what others are saying.

It is hard to speak your thoughts clearly.

It is not hard to give a talk in front of other people.

I am not good at describing things in writing.

Identity

I can't really say what my interests are.

I never seem to feel the same about myself from one week to the next.

Most people are better liked than I am.

My life is pretty empty.

I can't seem to keep people as friends for very long.

I'm acting like something I'm not a lot of the time.

I never know what I'm going to do next.

I change the way I feel and act so often that I sometimes wonder who the "real" me is.

Nobody knows what I'm really like.

I am not really accepted and liked.

Roles

If you see a coat you think you might like to buy, the sales person should agree to save it for as long as it takes you to decide.

If I find something on the sidewalk, it's mine because I found it.

If my friend lends me money, he should wait until I pay it back and not ask for it.

If a salesman is very nice to you, you should try to buy something from him.

If you're a guest in somebody's home and make a phone call that only costs about a dollar, you don't have to offer to pay for it.

If you buy a sweater with a tag saying "cannot be returned" and it turns out to be too small, you should insist that the store take it back.

It's all right that a policeman takes a little better care of those stores where the owner gives him a tip once in a while.

If you're in a hurry in a store, others should be willing to let you get ahead of them.

People who work for the city should not have to pay traffic tickets because they already do so much for the city.

Your friends should be willing to lend you anything you want.

Trust

191 If people are picked in a fair way to be on a trial jury, they are sure to reach a fair decision.

195 There is no way to decide ahead of time who you can trust.

196 People can be trusted no matter what they have to win or lose.

203 Never depend on anyone if you can help it.

207 There are more good people than bad people.

211 If a man in government isn't honest, he won't get elected more than once.

- 212 You can be sure people will be honest with you if you are honest with them.
- 219 Nobody really wants to cheat another person out of something.
- 224 If a person is on trial in court, the decision will be fair no matter what kind of family he comes from.
- 226 If you can trust a person in one way, you know you can trust him in all ways.

Social Commitment

I would rather use my free time to enjoy myself than to help raise money for a neighborhood project.

Why work for something that others will enjoy if you won't be alive to enjoy it too?

I would only give a large sum of money to medical research on cancer if I knew they would find a cure in my lifetime.

If I felt strongly about something, like race relations or better medical care for the poor, I would only work for it if there was a chance things could be changed quickly.

It's not really my problem if my neighbors are in trouble and need help.

Time you spend helping others get what they want would be better spent trying to get what you want.

It is much more satisfying to work for your own good than to work for the good of a group you belong to.

I would not like it if they used some of my tax money to keep up a park that I never use.

If there is only one copy of a book everyone wants to read, the person who gets it first should be able to keep it as long as he wishes.

If a sign in a park says "Do not pick the flowers--they are here for all to enjoy," you can pick a few if you have a good personal reason.

A person is responsible only for the happiness of his family, relatives, and close friends.

Tolerance

If a friend whose ideas about God are very different from mine gave me a religious magazine to read, I wouldn't read it.

You should avoid spending too much time with people who are not approved of, even though you think they are really all right.

I would not mind being friends with a person whose father or mother was in trouble with the law.

I don't think I could be close friends with a crippled person.

Hippies should not move into neighborhoods where there are mostly older people and young children.

It would bother me to work for a person whose skin color is different from mine.

I would not make friends with a person who had very different manners from mine.

I would rather not live in a neighborhood where there are people of different races or skin color.

I would not mind working closely on a job with a person whose skin color is different from mine.

I wouldn't like to spend the weekend in the home of a friend whose parents don't speak English.

If I had a choice, I would prefer a blood transfusion from a person the same skin color as mine.

Change

A man shouldn't cook dinner for his wife and children unless the wife is sick.

We should limit the number of women who can train for jobs usually held by men, such as dentist or engineer.

Women who decide not to be mothers are not doing what they should.

Women should not be elected to top government positions.

Schools should not let new methods of teaching like TV and tapes, take up too much time in school.

I would like to talk to other students all over the world by way of satellite.

Men should be able to train themselves for jobs usually held by women, such as elementary school teacher, nurse, and telephone operator.

Children cannot be happy staying in day care centers while their mothers are at work.

I wouldn't like it if a lot of girls my age became lawyers, engineers, and business managers.

If we limit the amount of money people can earn, we take away some of their freedom.

If we don't encourage women to work, we are seriously reducing what the country could accomplish.

SCHOOL ATTITUDE QUESTIONNAIRE

My school doesn't teach the more important things in life.

My school teaches me the things I want to learn.

My school activities don't help me in anything that I do outside of school.

Most school work will be useful to me when I get out of school.

Classes in my school do not apply to the world.

I don't think I'm learning a lot of things in school that will help me earn a living when I get older.

YCC Camp Satisfaction Questionnaire (to be read aloud after completion of the PSM)

Directions: We are going to read some additional questions to you now that have to do with how you felt about this summer's YCC program. After each statement is read please use the answer sheet to indicate how strongly you agree or disagree with it. Darken in A if you agree strongly, B if agree, C if you disagree, and D if you disagree strongly: just as on the earlier questions.

Any questions?

(The questions are numbered according to the number on the answer sheet they correspond to. The first item is 100, since the last PSM item was number 99.)

100. I really liked the YCC summer program.
101. Boys seemed more capable than girls on most of the jobs.
102. We had all the tools and materials we needed to get our work done.
103. This job was good experience for future jobs.
104. We had interesting projects to do on rainy days.
105. I learned a great deal about how to use tools.
106. I think the work we accomplished was worthwhile.
107. When I didn't know how to do a job, staff members always offered ideas to help me do the job better.
108. Our work projects and assignments were well planned and coordinated.
109. The work was boring much of the time.
110. I think I learned quite a bit about the environment in our group's environmental education program.
111. Campers from different family backgrounds got along very well here.
112. I have developed quite a few friendships with other workers in the program.
113. Staff members would sometimes take out their frustrations on the workers in unpleasant ways.
114. I have learned a great deal about how to work on projects that require teamwork.

- 115. I feel more comfortable around adults now than I did before the program.
- 116. I have learned a great deal about how I can help people in my community become active in working on environmental problems.
- 117. I have learned a great deal about how to get along better with people who are different from myself. (Different in any way--racially, ethnically, personality, etc.)
- 118. I think we were underpaid.
- 119. As a result of this program, I have begun to think more seriously about looking into educational or career opportunities in environmental conservation, or related areas.
- 120. I wish I could have had more to say about planning the work and making rules.

Your name _____

Leader's name _____

1. He/she is someone I can talk to.
always often sometimes seldom never
1 2 3 4 5
2. He/she involves us in decisions.
always often sometimes seldom never
1 2 3 4 5
3. He/she praises us for a job well done.
always often sometimes seldom never
1 2 3 4 5
4. He/she is poorly organized.
always often sometimes seldom never
1 2 3 4 5
5. He/she can be counted on to do what he/she says.
always often sometimes seldom never
1 2 3 4 5
6. He/she works along with us.
always often sometimes seldom never
1 2 3 4 5
7. He/she knows what's happening on the job.
always often sometimes seldom never
1 2 3 4 5
8. He/she gets along well with the workers.
always often sometimes seldom never
1 2 3 4 5
9. He/she lets us loaf.
always often sometimes seldom never
1 2 3 4 5
10. He/she is open to disagreement.
always often sometimes seldom never
1 2 3 4 5
11. He/she knows when someone is trying to get away with something and does something about it.
always often sometimes seldom never
1 2 3 4 5
12. He/she jokes with us.
always often sometimes seldom never
1 2 3 4 5

13. He/she is respected by the workers.

always	often	sometimes	seldom	never
1	2	3	4	5

14. He/she gives special treatment to some workers.

always	often	sometimes	seldom	never
1	2	3	4	5

15. He/she calls attention to interesting things in the environment (like animal and plant life).

always	often	sometimes	seldom	never
1	2	3	4	5

16. He/she teaches us how to do things if we don't know how.

always	often	sometimes	seldom	never
1	2	3	4	5

17. He/she explains his/her actions to the group.

always	often	sometimes	seldom	never
1	2	3	4	5

18. He/she does not help us with problems.

always	often	sometimes	seldom	never
1	2	3	4	5

19. He/she comes up with new ways to approach a problem.

always	often	sometimes	seldom	never
1	2	3	4	5

20. He/she sets goals for the group.

always	often	sometimes	seldom	never
1	2	3	4	5

Here are twelve questions about survival in the wilderness. Your first task is to choose by yourself the best of the three choices given under each item. Try to imagine yourself in the situation described. Assume that you are alone and have little equipment. The season is fall. The days are warm and dry, but the nights are cold.

After you have completed this task by yourself, you will again consider each question as a member of a small group. Your group will have the task of deciding, by consensus, the best choice for each question. Do not change your individual answers, even if you change your mind in the group discussion. Both the individual and group solutions will later be compared with the "correct" answers provided by a group of naturalists who conduct classes in woodland survival.

Circle the letter of the answer you choose.

1. You have strayed from your group in dense forest. You have no special signaling equipment. The best way to attempt to contact your friends is to:
 - a. call "help" loudly but in a low voice.
 - b. yell or scream as loud as you can.
 - c. whistle loudly and shrilly.
2. You are in "snake country." Your best action to avoid snakes is to:
 - a. make a lot of noise with your feet.
 - b. walk softly and quietly.
 - c. travel at night.
3. You are hungry and lost in wild country. You do not see any edible plants you know. The best rule for deciding whether to eat a plant you don't know is to:
 - a. try anything you see the birds eat.
 - b. eat anything except plants with bright red berries.
 - c. put a bit of the plant on your lower lip for five minutes; if it seems all right, try a little.
4. The day becomes dry and hot. You have a full canteen of water (about one quart) with you. You should:
 - a. ration it -- about a cupful a day.
 - b. not drink until you stop for the night, then drink what you think you need.
 - c. drink as much as you think you need when you need it.
5. Your water is gone; you become very thirsty. You finally come to a dried-up stream bed. Your best chance of finding water is to:
 - a. dig anywhere in the stream bed.
 - b. dig up plant and tree roots near the bank.
 - c. dig in the stream bed at the outside of a bend.
6. You decide to walk out of the wild country by following a series of ravines where a water supply is available. Night is coming on. The best place to make camp is:
 - a. next to the water supply in the ravine.
 - b. high on a ridge.
 - c. midway up the slope.

7. Your flashlight glows dimly as you are about to make your way back to your campsite after a brief trip. Darkness comes quickly in the woods and the surroundings seem unfamiliar. You should:
 - a. head back at once, keeping the light on, hoping the light will glow enough for you to make out landmarks.
 - b. put the batteries under your armpits to warm them, and then replace them in the flashlight.
 - c. shine your light for a few seconds, try to get the scene in mind, move out in the darkness, and repeat the process.
8. An early snow confines you to your small tent. You doze with your small stove going. There is danger if the flame is:
 - a. yellow.
 - b. blue.
 - c. red.
9. You must ford a river that has a strong current, large rocks, and some white water. After carefully selecting your crossing spot, you should:
 - a. leave your boots and pack on.
 - b. carry your boots and pack in your arms.
 - c. carry your pack in your arms, but leave your boots on.
10. In waist-deep water with a strong current, when crossing the stream, you should face:
 - a. upstream.
 - b. across the stream.
 - c. downstream.
11. You find yourself in a dead-end ravine; your only route is up. The way is mossy, slippery rock. Your boots have smooth soles. You should try it:
 - a. barefoot.
 - b. with boots on.
 - c. in stocking feet.
12. Unarmed, you surprise a large bear prowling around your campsite. As the bear rears up about ten yards from you, you should:
 - a. run.
 - b. climb the nearest tree.
 - c. freeze, but be ready to back away slowly.

Reproduced from The 1976 Annual Handbook for Group Facilitators, J. William Pfeiffer and John E. Jones, Editors, LaJolla, California: University Associates, Inc., 1976.

Here are the recommended courses of action for each of the situations on the Wilderness Survival Work Sheet. These answers come from the comprehensive course on woodland survival taught by the Interpretive Service, Monroe County (New York) Parks Department. These responses are considered to be the best rules of thumb for most situations; specific situations, however, might require other courses of action.

1. (a.) Call "help" loudly but in a low voice. Low tones carry farther, especially in dense woodland. There is a much better chance of being heard if you call loudly but in a low key. "Help" is a good word to use, because it alerts your companions to your plight. Yelling or screaming would not only be less effective, but might be passed off as a bird call by your friends far away.
2. (a.) Make a lot of noise with your feet. Snakes do not like people and will usually do everything they can to get out of your way. Unless you surprise or corner a snake, there is a good chance that you will not even see one, let alone come into contact with it. Some snakes do feed at night, and walking softly may bring you right on top of a snake.
3. (c.) Put a bit of the plant on your lower lip for five minutes; if it seems all right, try a little. The best approach, of course, is to eat only those plants that you recognize as safe. But when you are in doubt and very hungry, you may use the lip test. If the plant is poisonous, you will get a very unpleasant sensation on your lip. Red berries alone do not tell you much about the plant's edibility (unless, of course, you recognize the plant by the berries) and birds just do not have the same digestive systems we do.
4. (c.) Drink as much as you think you need when you need it. The danger here is dehydration (drying out), and once the process starts, your quart of water will not do much to reverse it. Saving or rationing will not help, especially if you are lying unconscious somewhere from sunstroke or dehydration. So use the water as you need it, and be aware of your need to find a water source as soon as possible.
5. (c.) Dig in the stream bed at the outside of a bend. This is the part of the river or stream that flows the fastest, is less silted, deepest, and the last part to go dry.
6. (c.) Midway up the slope. A sudden rain storm might turn the ravine into a raging torrent. This has happened to many campers and hikers before they had a chance to escape. The ridge line, on the other hand, increases your exposure to rain, wind, and lightning, should a storm break. The best location is on the slope.
7. (b.) Put the batteries under your armpits to warm them, and then replace them in the Flashlight. Flashlight batteries lose much of their power, and weak batteries run down faster, in the cold. Warming the batteries, especially if they are already weak, will restore them for a while. You would normally avoid night travel, of course, unless you were in open country where you could use the stars for navigation. There are just too many obstacles (logs, branches, uneven ground, and so on) that might injure you -- and a broken leg, injured eye, or twisted ankle would not help your plight right now. Once the sun sets, darkness falls quickly in wooded areas; it would usually be best to stay at your campsite.
8. (a.) Yellow. A yellow flame indicates incomplete burning and a strong possibility of carbon monoxide build-up. Each year many campers are killed by carbon monoxide poisoning as they sleep or doze in tents, cabins, or other enclosed spaces.

9. (a.) Leave your boots and pack on. Errors in fording rivers are a major cause of fatal accidents. Sharp rocks or uneven footing demand that you keep your boots on. If your pack is fairly well balanced, wearing it will provide you the most stability in the swift current. A waterproof, zippered backpack will usually float, even when loaded with normal camping gear; if you step off into a hole or deep spot, the pack could become a lifesaver.
10. (b.) Across the stream. Errors in facing the wrong way in fording a stream are the cause of many drownings. Facing upstream is the worst alternative; the current could push you back and your pack would provide the unbalance to pull you over. You have the best stability facing across the stream, keeping your eye on the exit point on the opposite bank.
11. (c.) In stocking feet. Here you can pick your route to some degree, and you can feel where you are stepping. Smooth-soled hiking boots become slippery, and going barefooted offers your feet no protection at all.
12. (c.) Freeze, but be ready to back away slowly. Sudden movement will probably startle the bear a lot more than your presence. If the bear is seeking some of your food, do not argue with him; let him eat and be on his way. Otherwise, back very slowly toward some refuge (trees, rock outcrop, etc.).

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Interviewer

Date

Interviewee

YCC Interview

1. Why did you want to join YCC?

Has it worked out that way?

Do you still feel that way?

2. What do you like best about the YCC?

Are there other things you like about YCC?

3. If you could change one thing about the YCC, what would it be?

Are there any other changes that would make it better?

4. How did you feel about the way the project was organized?

4. (continued)

Could that have been improved? How?

Did your crew always have what was needed -- money, equipment?

(If not:) Was this much of a problem?

5. What do you think makes a good crew leader?

6. Did you have anything to say about what work was done and how to do it?

(If not:) Who did?

(If did:) Can you give me an example of a decision you helped to make?

Would you like to have had more of a voice in decision making?

If you had an idea about how the crew should work differently, what would you do?

What would you expect to happen?

7. Did boys and girls do the same kinds of work?

(If so:) Was that a new experience for you? (How did you feel about that?)

(If not:) What was the difference? (How did you feel about that?)

Why was there a difference?

(If nothing about crew leader:) Did your crew leader expect more from guys than girls?

Would you have preferred an all same sex (as respondent) work crew?

8. Did you get to know some other people that you hadn't known before?

Were they mostly like people you already knew or different in some ways?
(Age, sex, etc.)

Would you like to see any of them after the project is over?

Who?

9. How important do you think the work you have been doing is?

Why do you say that?

Can you think of any work you might have done that would have been more important?

9. (continued)

How do you feel about the amount of work your crew got done this summer?

What kept you from doing more?

Why do you think you worked so well?

10. Did you prefer working:

- a. by yourself?
- b. with one other?
- c. with 2-3 other people?
- d. with 4-8 other people?
- e. with more than 8 other people?

Why?

11. Did you learn anything from being in YCC?

What did you learn about yourself?

Do you plan to do anything differently in the future because of your experience this summer? (E.G. school, career)

Do you like to work?

Has that changed this summer?

Do you think you learned any skills you could use in the future?

Would you like a job next summer?

What sort of work?

 Site

 Code

ACTUAL JOB PREFERENCE RATING

1. In column one, check those jobs you have done this summer.
2. In column two, number those jobs you have done in order of your preference -- Place a 1 next to the job you like best, 2 next to the job you liked second best, and so on.

1. Jobs done

2. Preference

 Construction (buildings, shelters, steps,
 fences, benches, bridges,
 stone masonry, bird houses, etc.)

Clearing bursh

Thinning trees

Building trails

Maintaining tools

Site

Code

POSSIBLE JOB PREFERENCE RATING

Below is a list of jobs that might be done by Youth Conservation Corps enrollees. Look over the list and decide which five jobs you would most like to be able to do as a YCC enrollee. In the first column, write a 1 next to the job you would most like to do, a 2 next to the one you would like to do next best, and so on to your fifth choice. In the second column, write "yes" if you have actually done this kind of job, either in YCC or elsewhere.

1. Preference 2. Experience

_____	_____	Working with fish and wildlife
_____	_____	Clearing up litter
_____	_____	Photography
_____	_____	Thinning trees
_____	_____	Teaching about the environment
_____	_____	Maintaining tools
_____	_____	Making signs
_____	_____	Public relations
_____	_____	Planting trees
_____	_____	Painting
_____	_____	Testing for air or water pollution
_____	_____	Improving streams
_____	_____	Construction
_____	_____	Controlling erosion
_____	_____	Surveying
_____	_____	Improving wildlife habitat
_____	_____	Land use inventory and planning
_____	_____	Making maps and leaflets
_____	_____	Controlling water pollution
_____	_____	Building trails

Questions for YCC Staff

Interviewer	Date	Site	Interviewee
1.			How are you feeling about YCC now that it is ending? What have been your biggest problems? What satisfactions has it given you?
2.			What do you think YCC does for the participants?
3.			Have you seen particular individuals who have benefitted more than others? Who are they? (names and descriptions) What makes you think it has been good for them? For what reason do you think it has been good for them?
4.			How do you feel about the way the project was organized and administered?
5.			Has our evaluation interfered with the project in any way? Do you have any ideas about how we could have avoided that? Are there any ideas or questions you would especially like the report to include?